



Office of the Principal Scientific Adviser
to the Government of India

Science & Technology Cluster



New Energy

From Evaluation to Adoption

2026





A cross-section of **senior experts** converged to discuss **India's transition** from **capacity** to **adoption**

On **5 August 2026**, **Think Change Forum** convened **New Energy: From Evaluation to Adoption** at the **India International Centre, New Delhi**. The **seminar** brought together **policymakers, industry leaders, financiers, researchers** and **innovators** around a single question: India has built world-leading clean-energy capacity but **how does it now integrate and use that capacity at scale?**

Across keynotes, expert panels and fireside chats, the discussion moved past targets to the real bottlenecks including grid integration, storage and financing, and converged on four priority actions to accelerate adoption.





Office of the Principal Scientific Adviser
to the Government of India

Science & Technology Cluster



Knowledge Partner

DRIIV – Delhi Research Implementation and Innovation is the umbrella body of the **Delhi Science & Technology Cluster** and a **flagship initiative** of the Office of the **Principal Scientific Adviser** to the Government of India, set up on the recommendation of **PM-STIAC**. **Strategically housed** at **IIT Delhi**, **DRIIV** brings together **academia, industry, start-ups** and **government** to bridge the critical gap between lab-scale innovation and large-scale deployment. **DRIIV's** mandate is to **accelerate** the **journey** of sustainable and **future-ready** solutions from concept to commercialisation, enabling validation, pilot testing, **industry adoption** and **realworld impact**.

Supported By

i-Feva, established in 2019, the International Federation of Electric Vehicle Association i-FEVA is India's First Federation of Electric Vehicle and its **non-profit organization** with the objective of **promoting electric vehicle in India**, research, development and deployment of electric vehicles. i-FEVA is a part of **Testing Instruments Indian Chambers of commerce & Industry (tiicci)**.





“

Conventional solar panels are limited to about 33% efficiency. Quantum dots could potentially raise this to nearly 66%, effectively doubling power generation from the same land area.

– Mr. Upendra Tripathy

Former Director General Ministry of New and Renewable Energy international solar alliance

How the Day Unfolded

INTRODUCTION & WELCOME Setting the Stage (10:00 – 10:25 AM)

Think Change Forum (welcome remarks)

Special Address: Dr Amrita Dawn — Chief Innovation Officer, DRIIV

Framed the day's purpose: connecting the demand and supply sides of the new-energy ecosystem, and DRIIV's mandate to move sustainable solutions from lab-scale research to large-scale deployment.



OPENING KEYNOTE From Evaluation to Adoption (10:25 – 10:45 AM)

Dr Ajay Mathur — Former Director General, International Solar Alliance; Bureau of Energy Efficiency; Professor of Practice, School of Public Policy, IIT Delhi

The technology works — the real question now is adoption.

- Crossing from pilot to commercial scale takes three things: proof of performance, bankability, and buyer confidence.
- Adoption is an ecosystem challenge — no single ministry, PSU or bank can deliver it alone; regulators should create sandboxes to test new tech at scale.



SPECIAL KEYNOTE 10:45 – 11:00 AM

Mr A.K. Saxena — Senior Director, TERI

New technologies keep emerging — but they only scale when the full system is ready.

- Six enablers must line up for any new tech: policy, standards, skills, finance, business models and demand.
- Agri-PV and CSP-plus-storage are maturing fast and ready for wider deployment.



PANEL DISCUSSION – Building the Adoption Ecosystem for New Energy Solutions (11:00 AM – 12:00 PM)

Moderator: Mr Gaurav Choudhury (CEO, Ear Shot Media).

Panellists: Dr Srikanta K. Panigrahi (Director General, Indian Institute of Sustainable Development)

Mr J.S. Chandok (CEO, ONGPL)

Dr Vishal Choudhary (Scientist F, Office of the PSA)

Dr Deepti Mahajan (Researcher & Educator, Dean's Office, Shiv Nadar University)

Dr Pankaj Lal (Founding Director, Clean Energy Sustainability Analytics Centre, Montclair State University)

Ms Shilpi Samantray (Sr. Portfolio Manager, Sub National Climate Action, Energiva Ventures)

Mr A.K. Saxena (Sr. Director, TERI)

Planned around startups, ROI and affordability – the discussion centred instead on why proven solutions still don't scale.

- The real gap is execution, not ambition; breaking institutional silos is the biggest structural fix, with PSUs acting as demand creators and de-riskers.
- State-level bottlenecks (capacity, coordination, finance, approvals) stall delivery – and adoption should be incremental, commercially framed, and paired with a just transition.



FIRESIDE CHAT – Innovation Spotlight: From Solution to Scale (12:00 – 12:20 PM)

Mr Kumar Subramanian (MD & Founder, Sculpt Partners) **with Mr Jiwesh Nandan** (Retd. IAS; Distinguished Fellow, TERI; Founding CEO, EESL)

How EESL turned demand aggregation into more than 50 billion kWh of energy savings.

- Government must take the early risk to prove a market, then step aside for the private sector – “it's the market and the mandate” together that drive change.
- Crowding in commercial capital needs risk-guarantee funds, greener procurement rules and carbon pricing to close the green premium.



INNOVATION SHOWCASE Made-in-India Efficiency (12:20 – 12:40 PM)

Mr Ashish Goel (Co-Founder, Optimist)

Showcased one of the country's most efficient air conditioners a live example of the proof-of-performance, bankability and buyer-confidence formula cited in the opening keynote.



PARTNER INTRODUCTION- IFEVA (12:40 – 1:00 PM)

Dr Rajeev Mishra (President, IFEVA)

Introduced IFEVA and its role in accelerating electric-mobility adoption by connecting innovators, industry and policy across the EV ecosystem.



Moderator: Dr Rahul Walawalkar (Netzero Energy Transition Association) with Mr Raj Singh Niranjana (Managing Partner, Trans India Law Associates)

The biggest barrier to solar isn't technology it's land and regulation.

- Because land is a State subject, there can be no single national solar policy – only state-level frameworks; transmission adds “right of way” challenges.
- Investors back only what is bankable, risk-free and transaction-ready – which comes down to mastering land, law, policy and standards.



SPECIAL KEYNOTE 2:20 – 2:40 PM

Mr Upendra Tripathy

Retd. IAS; Former Director General, Ministry of New and Renewable Energy; Founding DG, International Solar Alliance; Advisor (Climate Change) to the Hon'ble CM of Karnataka

The inside story of India's 100 GW solar target – from “no funds, no land, no demand” to global leadership.

- Emerging innovation keeps resetting the limits – from higher-efficiency solar cells to night-time power from stored solar heat.
- Technology never travels alone; it carries people, values and culture, and succeeds only when it fits them.



PANEL DISCUSSION – Legacy Companies, Energy Efficiency & Carbon Reduction 2:40 – 3:40 PM

Moderator: Dr Rahul Walawalkar (Netzero Energy Transition Association).

Panellists: Ms Disha Agarwal (Fellow, CEEW)

Mr Sandeep Kanda (Consultant, World Bank)

Mr Vishwas Surange (CEO & ED, Powerlinks Transmission)

Mr Arindam Ghosh (Partner-Power Sector, Nangia Global)

Ms Rupal Jain (Technology Policy – Nuclear, Reliance Industries)

Mr Raj Singh Niranjana (Trans India Law Associates)

There's no silver bullet – the transition needs several fronts advancing together.

- Even proven tech takes 20–30 years to reach scale, so build the business case on value, not just falling prices – and use digitalisation (India Energy Stack, smart meters) as the software layer for decarbonisation.
- Nuclear revival, transmission innovation and carbon markets must scale in parallel – from Reliance's “sand to electrons to green molecules” to Powerlinks' pioneering PPP grid to carbon markets catalysing biomass power.



“ There remains a significant gap between successful pilots and widespread commercial adoption. Bridging this gap requires three things: proof of performance, bankable business model innovation, and buyer confidence. These may not be new ideas, but they are fundamental to moving from innovation to large-scale deployment.”

– Mr. Ajay Mathur

Former Director General, International Solar Alliance;
Bureau of Energy Efficiency; Professor of Practice,
School of Public Policy, IIT Delhi



Media Coverage

THE ECONOMIC TIMES Industry
English Edition • Today's ePaper

Home • ETPrime • Markets • Market Data • Masterclass News • Industry • SME • Politics • Wealth Mf • Tech • AI • Careers • Opinion • NRI • Panache • Auto • Banking/Finance • Cons. Products • Energy • Renewables • Indt Goods/Svs • Healthcare/Biotech • Services • Media/Entertainment • More •

Business News • Industry • Renewables • India's clean-energy push must shift from capacity to adoption: Experts

India's clean energy push must shift from capacity to adoption: Experts

PTI • Last Updated: Aug 05, 2026, 07:21:00 PM IST

Synopsis
India must now integrate its expanding clean energy capacity effectively. Experts highlight transmission and storage as key integration challenges. Significant solar electricity was curtailed due to grid constraints. The nation requires substantial energy storage for grid stability. Adoption, productive utilization, and policy alignment are now priorities.



India must now integrate its expanding clean energy capacity effectively. Experts highlight transmission and storage as key integration challenges

New Delhi: India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday.

Experts noted that while India has built a non-fossil-fuel power capacity of 283.46 GW, including 274.68 GW of renewable energy, the country now faces challenges in ensuring that the clean energy generated is efficiently

NEWS 18 English Edition • Tue, Aug 11, 2026 | 08:08 PM

Home • India • World • Explainers • DataPop • Cricket • Cities • Movies • Lifestyle • Business • Tech • Latest • More •

TRENDING: Ram Mandir Donation Case | Rahul Gandhi | Assam Floods | US Iran War | UPI Charges | Iphone Deals | Amazon Great | Follow Us

News / Agency-Feeds / India Needs To Focus On Grid Integration Of Clean Energy Capacity, Say Experts

India needs to focus on grid integration of clean energy capacity, say experts

Agency: PTI
Last Updated: August 05, 2026, 19:30 IST

Rapid Read



New Delhi, Aug 5 (PTI) India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday.

Experts noted that while India has built a non-fossil-fuel power capacity of 283.46 GW, including 274.68 GW of renewable energy, the country now faces challenges in ensuring that the clean energy generated is efficiently transmitted, stored, procured and used across sectors.

India is the world's third-largest in installed renewable-energy capacity, and added a record 55.29 GW of non-fossil capacity during FY2025-26, an official statement said.

The seminar, titled "New Energy: From Evaluation to Adoption", was organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as the knowledge partner.

Experts highlighted that transmission constraints, inadequate energy storage and uncertain procurement pathways were limiting the productive use of clean-energy capacity.

Around 8,133 GWh of solar electricity was curtailed during April-June 2026 because of transmission constraints and grid-security requirements. It added that India would require about 336 GWh of energy-storage capacity by 2029-30 and 411 GWh by 2031-32 to reliably integrate renewable power and maintain grid stability.

Former International Solar Alliance Director General Ajay Mathur said the country's focus should be on adopting clean-energy technologies at scale while improving energy efficiency, expanding electrification, supporting decarbonisation of energy-intensive industries and creating conditions for new technologies to be deployed.

Former MNRE Secretary Upendra Tripathy said practical and commercially viable transition pathways were needed for legacy sectors, adding that implementation should now be the priority.

TOI Business Desk / TIMESOFINDIA.COM / Aug 05, 2026, 20:43 IST



After building one of the world's largest renewable-energy bases, India must now turn its attention to ensuring that the electricity generated from clean sources is effectively integrated into the power system, experts said on Wednesday.

They said the country has reached a stage where the focus should move beyond adding generation capacity to improving how clean power is transmitted, stored, procured and utilised across sectors.

According to an official statement, India has installed 283.46 GW of non-fossil-fuel power capacity, of which 274.68 GW comes from renewable sources. The country also added a record 55.29 GW of non-fossil capacity during FY2025-26, making it the world's third-largest in installed renewable-energy capacity.

The issue was discussed at the seminar, *"New Energy: From Evaluation to Adoption"*, organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, which was the knowledge partner.

Existing bottlenecks limiting clean-energy use

Experts at the seminar said that expanding renewable capacity alone would not be enough unless supporting infrastructure keeps pace.



[Home](#)
[News](#)
[Leaders Speak](#)
[Events](#)
[Awards](#)
[Webinars](#)
[Brand Solutions](#)
[More ▾](#)

[Renewables](#) · [Oil & Gas](#) · [Coal](#) · [Economy](#) · [Companies](#) · [Power](#) · [Podcast](#) · [Energy TV](#) · [More](#) ▾

Renewable • 2 Min Read

India needs to focus on grid integration of clean energy capacity, say experts

India is the world's third-largest in installed renewable-energy capacity, and added a record 55.29 GW of non-fossil capacity during FY2025-26, an official statement said.

PTI
Published On Aug 6, 2026 at 06:52 AM IST



MoU will initially focus on Maharashtra, supporting renewable energy, climate-resilient village infrastructure and clean energy projects.

India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday.

Experts noted that while India has built a non-fossil-fuel power capacity of 283.46 GW, including 274.68 GW of renewable energy, the country now faces challenges in ensuring that the clean energy generated is efficiently transmitted, stored, procured and used across sectors.

India is the world's third-largest in installed renewable-energy capacity, and added a record 55.29 GW of non-fossil capacity during FY2025-26, an official statement said.

India: Focus on Clean Energy Grid Integration, Experts Say

By Rediff Money Desk, New Delhi

🕒 1 Minute Read 🎧 Listen to Article

Share:

Experts urge India to prioritize integrating its vast clean energy capacity. Challenges include transmission, storage, and procurement. Focus on adoption and infrastructure.

New Delhi, Aug 5 (PTI) India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday.

Experts noted that while India has built a non-fossil-fuel power capacity of 283.46 GW, including 274.68 GW of renewable energy, the country now faces challenges in ensuring that the clean energy generated is efficiently transmitted, stored, procured and used across sectors.

India is the world's third-largest in installed renewable-energy capacity, and added a record 55.29 GW of non-fossil capacity during FY2025-26, an official statement said.

The seminar, titled "New Energy: From Evaluation to Adoption", was organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as the knowledge partner.

Experts highlighted that transmission constraints, inadequate energy storage and uncertain procurement pathways were limiting the productive use of clean-energy capacity.

Around 8,133 GWh of solar electricity was curtailed during April-June 2026 because of transmission constraints and grid-security requirements. It added that India would require about 336 GWh of energy-storage capacity by 2029-30 and 411 GWh by 2031-32 to reliably integrate renewable power and maintain grid stability.

Former International Solar Alliance Director General Ajay Mathur said the country's focus should be on adopting clean-energy technologies at scale while improving energy efficiency, expanding electrification, supporting decarbonisation of energy-intensive industries and creating conditions for new technologies to be deployed.

Former MNRE Secretary Upendra Tripathy said practical and commercially viable transition pathways were needed for legacy sectors, adding that implementation should now be the priority.

According to the statement, experts called for aligning policy, finance, technology and demand, building bankable adoption models, accelerating transmission and storage infrastructure, and strengthening domestic value chains to speed up India's clean-energy transition.

They concluded that the next phase should be defined by integration, adoption and productive utilisation of the country's existing clean-energy capacity.

India's 283 GW Clean-Energy Base Must Shift to Adoption, Experts Urge

Experts say India must move beyond capacity creation to grid integration, storage, financing and procurement to fully utilise its 283.46 GW non-fossil-fuel power base and ensure reliable, affordable clean-energy adoption.

August 06, 2026. By E1 News Network



Experts at 'Think Change Forum' Seminar Stress India Must Shift from Capacity to Adoption

India's non-fossil-fuel power capacity has reached 283.46 GW, but the country now needs to move urgently from building capacity to ensuring its reliable transmission, storage, procurement and large-scale adoption, energy experts said at a national seminar.

Organised by the Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), the Office of the Principal Scientific Adviser's knowledge partner, the seminar, "New Energy: From Evaluation to Adoption", brought together policymakers, industry leaders, financiers, public-sector enterprises and clean-energy stakeholders at the India International Centre.

Experts noted that as of 31 March 2026, India had installed 283.46 GW of non-fossil-fuel capacity, including 274.68 GW of renewable energy, ranking third globally in installed renewable-energy capacity. The country also added a record 55.29 GW of non-fossil capacity during FY2025–26.

However, speakers stressed that installed capacity alone cannot deliver the energy transition. The next and more difficult phase, they said, will be to absorb variable renewable power into the grid, move it efficiently from generation centres to consumers, create dependable procurement mechanisms and enable industry, infrastructure, mobility, buildings, households and public institutions to adopt cleaner energy at scale.

The scale of the integration challenge is already visible. During April–June 2026, approximately 8,133 GWh of solar electricity was curtailed because of transmission constraints and grid-security requirements, experts said. At the same time, the Central Electricity Authority estimates that India will require approximately 336 GWh of energy-storage capacity by 2029–30 and 411 GWh by 2031–32 to integrate renewable power reliably and maintain grid stability.

Delivering the opening keynote, Dr Ajay Mathur, former director general of the International Solar Alliance and the Bureau of Energy Efficiency, said: "The real question is how we adopt clean energy technologies at scale, reliably and affordably."

He outlined five strategic focus areas: energy efficiency as the lowest-cost lever; shifting electricity sources as solar and wind with storage are now cheaper than new coal; enhancing electrification of cooking and mobility; providing realistic decarbonisation pathways for legacy, energy-intensive sectors like cement, steel and fertilisers where green hydrogen can play a critical role; and continuously evaluating and scaling emerging technologies.

"India's new energy future will be shaped not only by the technologies we develop, but by how effectively these are adopted, financed, and scaled. This is where ambition needs execution," Dr Mathur said.

In his keynote address, Shri Upendra Tripathy, retired IAS officer and former secretary, MNRE, now advisor (climate change) to Karnataka's chief minister, underlined the importance of practical and commercially viable transition pathways for legacy and energy-intensive sectors.

"This conversation is coming at the right time, given the range of challenges we've seen globally in recent times. These challenges are not uni-directional, they play out at every level, global, national, and state, and each requires its own solution," he said.

A.K. Saxena, senior director at TERI, said new energy solutions will continue to emerge, driven by both technology push and demand pull, but must be examined through common lenses of policy, regulations, standards, workforce and capacity building, financing and business models.

Dr Vishal Choudhary, scientist at the Office of the Principal Scientific Adviser, underlined the need to connect innovation, research, policy and implementation, and said: "A major concern is breaking down silos. Only when research, academia, industry, startups and government come on a single platform can we close the gap between technology validation and industry adoption."

Experts identified four priority areas for action: align policy, finance, technology and demand; build bankable adoption models; accelerate transmission and storage; and strengthen domestic value chains.

India's 283 GW clean energy base must move to adoption: Experts

By EPR Magazine Editorial August 5, 2026 7:03 pm IST



During April–June 2026, approximately 8,133 GWh of solar electricity was curtailed because of transmission constraints and grid-security requirements. Image credit: Think Change Forum

[Listen to this article](#)

National energy seminar discusses that India's 283.46 GW non-fossil-fuel capacity base must now move from capacity creation to integration and adoption at scale.

India has built a formidable foundation for clean energy transition. As of 31 March 2026, the country had installed 283.46 GW of non-fossil-fuel capacity, including 274.68 GW of renewable energy and ranked third globally in installed renewable-energy capacity. The country also added a record 55.29 GW of non-fossil capacity during FY2025–26. This was stated by experts at the national seminar themed "New Energy: From Evaluation to Adoption" held at the India International Centre, New Delhi. The seminar was organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as Knowledge Partner. It brought together leading energy experts, policymakers, innovators, public-sector enterprises, industry leaders, financiers and clean-energy stakeholders to discuss India's new-energy transition and the urgent need to move from evaluation to adoption.

The seminar sought to shift the national conversation from creating clean-energy capacity to ensuring that this capacity can be reliably transmitted, stored, purchased and productively used. The discussions examined how India can translate its expanding clean-energy base into greater energy security, affordability, industrial competitiveness and resilience. However, experts stressed that installed capacity alone cannot deliver the energy transition. The next and more difficult phase will be to absorb variable renewable power into the grid, move it efficiently from generation centres to consumers, create dependable procurement mechanisms and enable industry, infrastructure, mobility, buildings, households and public institutions to adopt cleaner energy at scale.



The scale of the integration challenge is already visible. During April–June 2026, approximately 8,133 GWh of solar electricity was curtailed because of transmission constraints and grid-security requirements. At the same time, the Central Electricity Authority estimates that India will require approximately 336 GWh of energy-storage capacity by 2029–30 and 411 GWh by 2031–32 to integrate renewable power reliably and maintain grid stability.

Delivering the opening keynote, Dr Ajay Mathur, Former Director General, International Solar Alliance and Former Director General, Bureau of Energy Efficiency, said: "The real question is how we adopt clean energy technologies at scale, reliably and affordably. Our strategic focus must rest on five areas. First, energy efficiency, it remains the lowest-cost, most immediate lever we have. Second, shifting our sources of electricity, since solar and wind with storage are now cheaper than new coal power, which means our focus must turn to land, transmission and capital for these plants. Third, enhancing electrification, of cooking, of mobility, to reduce our dependence on imported oil. Fourth, providing realistic decarbonisation pathways for legacy, energy-intensive sectors like cement, steel and fertilisers, where green hydrogen can play a critical role. And fifth, as we move from evaluation to adoption, new technologies will keep emerging that need that same evaluation. India's new energy future will be shaped not only by the technologies we develop, but by how effectively these are adopted, financed, and scaled. This is where ambition needs execution."

Experts highlighted that the next phase of India's energy transition will depend not only on the availability of technology or the ambition of public policy, but also on financing, buyer confidence, procurement pathways, transmission availability, storage, flexible demand and commercially sustainable business models.

MEDIA COVERAGE

India's Time Is Now: 283 GW Clean-Energy Base Must Move to Adoption, Say Experts

National energy seminar calls for urgent action on grid integration, storage, financing and procurement

CXOtoday News Desk 7 days ago

Think Change Forum, a leading independent think tank based in New Delhi, in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as Knowledge Partner, today organised a national seminar bringing together leading energy experts, policymakers, innovators, public-sector enterprises, industry leaders, financiers and clean-energy stakeholders to discuss India's new-energy transition and the urgent need to move from evaluation to adoption.

The seminar, themed "New Energy: From Evaluation to Adoption," sought to shift the national conversation from creating clean-energy capacity to ensuring that this capacity can be reliably transmitted, stored, purchased and productively used. The discussions examined how India can translate its expanding clean-energy base into greater energy security, affordability, industrial competitiveness and resilience.

Experts noted that India has built a formidable foundation for this transition. As of 31 March 2026, the country had installed 283.46 GW of non-fossil-fuel capacity, including 274.68 GW of renewable energy, and ranked third globally in installed renewable-energy capacity. India also added a record 55.29 GW of non-fossil capacity during FY2025-26.

However, experts stressed that installed capacity alone cannot deliver the energy transition. The next and more difficult phase will be to absorb variable renewable power into the grid, move it efficiently from generation centres to consumers, create dependable procurement mechanisms and enable industry, infrastructure, mobility, buildings, households and public institutions to adopt cleaner energy at scale.

The scale of the integration challenge is already visible. During April-June 2026, approximately 8,133 GWh of solar electricity was curtailed because of transmission constraints and grid-security requirements. At the same time, the Central Electricity Authority estimates that India will require approximately 336 GWh of energy-storage capacity by 2029-30 and 411 GWh by 2031-32 to integrate renewable power reliably and maintain grid stability.

The seminar was held at the India International Centre, New Delhi, and featured key voices from India's energy and sustainability ecosystem, including Dr Ajay Mathur, Former Director General, International Solar Alliance and Former Director General, Bureau of Energy Efficiency; Shri Upendra Tripathy, Retd. IAS, Advisor (Climate Change) to Hon CM of Karnataka and Climate Ambassador of the State of Karnataka, Former Secretary MNRE; Shri A.K. Saxena, Senior Director, TERI; Shri Jiwesh Nandan, Retd. IAS, Distinguished Fellow, TERI and Founding CEO, EESL; Shri J.S. Chandok, CEO, ONGPL; Dr Vishal Choudhary, Scientist F, Office of the Principal Scientific Adviser to the Government of India; Dr Srikanta K. Panigrahi, DG, Indian Institute of Sustainable Development; and Shri Raj Singh Niranjani, Managing Partner, Trans India Law Associates.

Delivering the opening keynote, Dr Ajay Mathur, Former Director General, International Solar Alliance and Former Director General, Bureau of Energy Efficiency, said: "The real question is how we adopt clean energy technologies at scale, reliably and affordably. Our strategic focus must rest on five areas. First, energy efficiency, it remains the lowest-cost, most immediate lever we have. Second, shifting our sources of electricity, since solar and wind with storage are now cheaper than new coal power, which means our focus must turn to land, transmission and capital for these plants. Third, enhancing electrification, of cooking, of mobility, to reduce our dependence on imported oil. Fourth, providing realistic decarbonisation pathways for legacy, energy-intensive sectors like cement, steel and fertilisers, where green hydrogen can play a critical role. And fifth, as we move from evaluation to adoption, new technologies will keep emerging that need that same evaluation. India's new energy future will be shaped not only by the technologies we develop, but by how effectively these are adopted, financed, and scaled. This is where ambition needs execution."

Experts highlighted that the next phase of India's energy transition will depend not only on the availability of technology or the ambition of public policy, but also on financing, buyer confidence, procurement pathways, transmission availability, storage, flexible demand and commercially sustainable business models.

In his keynote address, Shri Upendra Tripathy, Retd. IAS, Advisor (Climate Change) to Hon CM of Karnataka and Climate Ambassador of the State of Karnataka, Former Secretary MNRE, underlined the importance of practical and commercially viable transition pathways for legacy and energy-intensive sectors: "This conversation is coming at the right time, given the range of challenges we've seen globally in recent times. These challenges are not uni-directional, they play out at every level, global, national, and state, and each requires its own solution. There is no single fix that works for all of them. What gives me confidence, though, is how much has already being figured out on the ground, and we now need to take it to execution and implementation."



India needs to focus on grid integration of clean energy capacity, say experts

News Updates

India needs to focus on grid integration of clean energy capacity, say experts

India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday

PSU Watch Bureau

Published: 5th Aug, 2026 at 9:40 PM



New Delhi: India must now focus on integrating and adopting its rapidly expanding clean-energy capacity instead of merely adding generation, experts said on Wednesday.

Experts noted that while India has built a non-fossil-fuel power capacity of 283.46 GW, including 274.68 GW of renewable energy, the country now faces challenges in ensuring that the clean energy generated is efficiently transmitted, stored, procured and used across sectors.

Follow The PSUWatch Channel on WhatsApp

India is the world's third-largest in installed renewable-energy capacity, and added a record 55.29 GW of non-fossil capacity during FY2025-26, an official statement said.

The seminar, titled "New Energy: From Evaluation to Adoption", was organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as the knowledge partner.

Experts highlighted that transmission constraints, inadequate energy storage and uncertain procurement pathways were limiting the productive use of clean-energy capacity.

Home > Science

Science

Bridging innovation and commercial scale key to clean energy transition: Industry leaders

Overcoming Barriers to Scaling Up Deployment of Mature Clean Energy Solutions

The Hawk
Aug 05, 2026, 09:48 PM (Updated Aug 06, 2026, 04:49 PM)



New Delhi, Aug 5 (IANS) Industry leaders on Wednesday stressed the need to accelerate the transition of new energy technologies from evaluation to large-scale commercial adoption, saying the biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment.

Business & Industrial

Speaking at the Think Change Forum on "New Energy: Taking It from Evaluation to Adoption", Dr. Ajay Mathur, former Director General of the International Solar Alliance (ISA), said new technologies must be rigorously evaluated during their development, but once they have matured and proven to be cost-effective, the focus should shift towards scaling up their deployment.

He said technologies continue to evolve throughout the innovation journey, making evaluation essential. However, he noted that once a technology has demonstrated its maturity and economic viability, extending the evaluation phase unnecessarily can delay its wider adoption. According to him, large-scale deployment of proven technologies is now the key priority.

"It is equally important to continue assessing emerging technologies while ensuring that mature solutions reach the market as early as possible," Mathur added. He said discussions at forums such as these can provide valuable insights for policymakers, industry stakeholders and technology developers.

Echoing similar views, AK Saxena, Senior Director at TERI, said many promising technologies fail to reach the adoption stage despite showing potential during trials. He said this often happens because of inadequate investment, policy bottlenecks, lack of commercial confidence or technologies not yet being fully proven.

Saxena said the primary challenge is to create a bridge between emerging technologies and commercial-scale deployment. He added that discussions at the forum largely focused on identifying ways to overcome these barriers and accelerate the transition from innovation to widespread market adoption, enabling new energy technologies to contribute more effectively to the clean energy ecosystem.

News India's 283 GW Clean Energy Milestone Must Now Deliver Real-World Adoption: Experts

India's 283 GW Clean Energy Milestone Must Now Deliver Real-World Adoption: Experts



India's clean energy transition has entered a new phase where the focus must shift from building renewable energy capacity to ensuring its effective integration, storage and adoption across the economy, according to experts at the national seminar "New Energy: From Evaluation to Adoption" organised by Think Change Forum in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as Knowledge Partner.



The seminar brought together policymakers, industry leaders, researchers, financiers and clean energy stakeholders to discuss the opportunities and challenges associated with scaling renewable energy adoption while strengthening India's energy security, industrial competitiveness and long-term sustainability.

Speakers noted that India has established a strong foundation for its energy transition. As of 31 March 2026, the country had installed **283.46 GW of non-fossil fuel capacity**, including **274.68 GW of renewable energy**, making it the world's third-largest renewable energy market. India also added a record **55.29 GW of non-fossil capacity during FY2025-26**, reflecting the rapid pace of renewable. Despite these achievements, experts stressed that installed capacity alone cannot deliver the country's clean energy ambitions. The next stage of the transition will depend on the ability to integrate variable renewable energy into the grid, strengthen transmission infrastructure, expand energy storage, establish reliable procurement mechanisms and encourage large-scale adoption across industries, infrastructure, transport, buildings and households.

The discussions highlighted the growing challenge of renewable energy integration. During April-June 2026, approximately **8,133 GWh of solar electricity was curtailed** due to transmission constraints and grid security requirements. Participants also referred to estimates by the Central Electricity Authority indicating that India will require around **336 GWh of energy storage capacity by 2029-30 and 411 GWh by 2031-32** to reliably integrate renewable energy while maintaining grid stability.

Delivering the keynote address, **Dr. Ajay Mathur**, Former Director General of the International Solar Alliance and Former Director General of the Bureau of Energy Efficiency, said India's clean energy transition should now focus on five key priorities: improving energy efficiency, expanding renewable electricity supported by transmission and storage infrastructure, accelerating electrification of sectors such as mobility and cooking, developing practical decarbonisation pathways for hard-to-abate industries including steel, cement and fertilisers, and creating effective mechanisms for commercial adoption of emerging clean energy technologies.

He noted that while technologies will continue to evolve, India's success will ultimately depend on how effectively these innovations are financed, deployed and scaled across the economy.

Speaking during the seminar, **Shri Upendra Tripathy**, Advisor (Climate Change) to the Chief Minister of Karnataka, Climate Ambassador of Karnataka and former Secretary, Ministry of New and Renewable Energy (MNRE), emphasised the importance of practical implementation and commercially viable solutions for India's energy transition. He observed that global and domestic energy challenges require tailored approaches and said the focus should now move from identifying solutions to executing them effectively.

Highlighting the importance of creating an enabling ecosystem for emerging technologies, **Shri A.K. Saxena**, Senior Director, TERI, said successful deployment depends on supportive policy, regulations, standards, workforce development, financing and sustainable business models. Drawing parallels with India's experience in LED lighting and solar power, he noted that technological maturity and economies of scale significantly improve commercial viability over time.

NEWS

India's Clean Energy Transition Must Move from Capacity to Adoption, Experts Say at National Seminar

India has built one of the world's largest renewable energy bases, but experts say the next challenge is ensuring clean power is transmitted, stored, financed and adopted across the economy. At a national seminar organised by Think Change Forum and DRIIV, policymakers, industry leaders and energy experts outlined practical pathways to accelerate the country's new-energy transition.

By Sustainability Karma Desk 05/08/2026 4 mins read



India's clean energy transition has entered a decisive new phase, with experts calling for a stronger focus on adoption, integration and implementation rather than capacity creation alone. Think Change Forum, a leading independent think tank based in New Delhi, in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as Knowledge Partner, organised a national seminar bringing together leading energy experts, policymakers, innovators, public-sector enterprises, industry leaders, financiers and clean energy stakeholders to examine how India can accelerate the adoption of new energy technologies.

The seminar, themed "New Energy: From Evaluation to Adoption," focused on shifting the national conversation from building clean energy capacity to ensuring that this capacity can be reliably transmitted, stored, purchased and productively utilised. Discussions explored how India can convert its expanding clean energy base into greater energy security, affordability, industrial competitiveness and long-term resilience.

Speakers observed that India has established a strong foundation for its energy transition. As of 31 March 2026, the country had installed 283.46 GW of non-fossil fuel capacity, including 274.68 GW of renewable energy, making it the world's third-largest market for installed renewable energy capacity. India also added a record 55.29 GW of non-fossil fuel capacity during the 2025–26 financial year.

However, experts stressed that installed capacity alone would not be sufficient to deliver the transition. They noted that the more challenging phase lies in integrating variable renewable energy into the grid, transmitting electricity efficiently from generation centres to consumers, establishing dependable procurement mechanisms and enabling industries, infrastructure, transport, buildings, households and public institutions to adopt cleaner energy at scale.

Bridging innovation and commercial scale key to clean energy transition: Industry leaders



By: IANS

On: Wednesday, August 5, 2026 9:42 PM



New Delhi, Aug 5 (IANS) Industry leaders on Wednesday stressed the need to accelerate the transition of new energy technologies from evaluation to large-scale commercial adoption, saying the biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment.

Speaking at the Think Change Forum on "New Energy: Taking It from Evaluation to Adoption", Dr. Ajay Mathur, former Director General of the International Solar Alliance (ISA), said new technologies must be rigorously evaluated during their development, but once they have matured and proven to be cost-effective, the focus should shift towards scaling up their deployment.

He said technologies continue to evolve throughout the innovation journey, making evaluation essential. However, he noted that once a technology has demonstrated its maturity and economic viability, extending the evaluation phase unnecessarily can delay its wider adoption. According to him, large-scale deployment of proven technologies is now the key priority.

"It is equally important to continue assessing emerging technologies while ensuring that mature solutions reach the market as early as possible," Mathur added. He said discussions at forums such as these can provide valuable insights for policymakers, industry stakeholders and technology developers.

Echoing similar views, AK Saxena, Senior Director at TERI, said many promising technologies fail to reach the adoption stage despite showing potential during trials. He said this often happens because of inadequate investment, policy bottlenecks, lack of commercial confidence or technologies not yet being fully proven.

Saxena said the primary challenge is to create a bridge between emerging technologies and commercial-scale deployment. He added that discussions at the forum largely focused on identifying ways to overcome these barriers and accelerate the transition from innovation to widespread market adoption, enabling new energy technologies to contribute more effectively to the clean energy ecosystem.

283 GW Clean-Energy Base Must Move to Adoption, Say Experts

05-08-2026 09:25:44 PM



New Delhi | 5 August 2026:

Think Change Forum, a leading independent think tank based in New Delhi, in partnership with Delhi Research Implementation and Innovation (DRIIV), Office of the Principal Scientific Adviser to the Government of India, as Knowledge Partner, today organised a national seminar bringing together leading energy experts, policymakers, innovators, public-sector enterprises, industry leaders, financiers and clean-energy stakeholders to discuss India's new-energy transition and the urgent need to move from evaluation to adoption.

The seminar, themed "New Energy: From Evaluation to Adoption," sought to shift the national conversation from creating clean-energy capacity to ensuring that this capacity can be reliably transmitted, stored, purchased and productively used. The discussions examined how India can translate its expanding clean-energy base into greater energy security, affordability, industrial competitiveness and resilience.

Experts noted that India has built a formidable foundation for this transition. As of 31 March 2026, the country had installed 283.46 GW of non-fossil-fuel capacity, including 274.68 GW of renewable energy, and ranked third globally in installed renewable-energy capacity. India also added a record 55.29 GW of non-fossil capacity during FY2025-26. However, experts stressed that installed capacity alone cannot deliver the energy transition. The next and more difficult phase will be to absorb variable renewable power into the grid, move it efficiently from generation centres to consumers, create dependable procurement mechanisms and enable industry, infrastructure, mobility, buildings, households and public institutions to adopt cleaner energy at scale.

Bridging innovation and commercial scale key to clean energy transition: Industry leaders

POSTED BY: DORN AUGUST 5, 2026

SEARCH

FOLLOW US



New Delhi, Aug 5 (SocialNews.XYZ) Industry leaders on Wednesday stressed the need to accelerate the transition of new **energy** technologies from evaluation to large-scale commercial **adoption**, saying the biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment. **Engineering & Technology**

Speaking at the Think Change Forum on "New **Energy**: Taking It from Evaluation to Adoption", Dr. Ajay Mathur, former Director General of the International Solar Alliance (ISA), said new technologies must be rigorously evaluated during their development, but once they have matured and proven to be cost-effective, the focus should shift towards scaling up their deployment.

New Delhi, Aug 5 (SocialNews.XYZ) Industry leaders on Wednesday stressed the need to accelerate the transition of new **energy** technologies from evaluation to large-scale commercial **adoption**, saying the biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment. **Engineering & Technology**

Speaking at the Think Change Forum on "New **Energy**: Taking It from Evaluation to Adoption", Dr. Ajay Mathur, former Director General of the International Solar Alliance (ISA), said new technologies must be rigorously evaluated during their development, but once they have matured and proven to be cost-effective, the focus should shift towards scaling up their deployment.

He said technologies continue to evolve throughout the innovation journey, making evaluation essential. However, he noted that once a technology has demonstrated its maturity and economic viability, extending the evaluation phase unnecessarily can delay its wider adoption. According to him, large-scale deployment of proven technologies is now the key priority.

"It is equally important to continue assessing emerging technologies while ensuring that mature solutions reach the market as early as possible," Mathur added. He said discussions at forums such as these can provide valuable insights for policymakers, industry stakeholders and technology developers. **Language Resources**

Echoing similar views, AK Saxena, Senior Director at TERI, said many promising technologies fail to reach the adoption stage despite showing potential during trials. He said this often happens because of inadequate investment, policy bottlenecks, lack of commercial confidence or technologies not yet being fully proven.

Saxena said the primary challenge is to create a bridge between emerging technologies and commercial-scale deployment. He added that discussions at the forum largely focused on identifying ways to overcome these barriers and accelerate the transition from innovation to widespread market adoption, enabling new energy technologies to contribute more effectively to the clean energy ecosystem.

Source: IANS

newKerala.com

EST. 2001 • INDIA EDITION

HomeIndiaWorldBusinessCricket

TECHNOLOGY NEWS

UPDATED AUG 5, 2026

Bridging Innovation and Commercial Scale Key to Clean Energy Transition: Industry Leaders

Industry leaders at the Think Change Forum stressed that the main challenge in clean energy is not innovation but scaling proven technologies to commercial adoption. Dr. Ajay Mathur, former ISA Director General, emphasized that once technologies are mature and cost-effective, prolonged evaluation delays adoption. AK Saxena of TERI noted many promising technologies fail due to investment gaps, policy bottlenecks, and lack of commercial confidence. The forum focused on overcoming these barriers to accelerate the clean energy transition.

1 IANS

AUG 5, 2026 • 2 MIN READ • 179 VIEWS

SAVELISTENCOPY

AT A GLANCE

Key points

- Need to accelerate transition from evaluation to commercial adoption
- Once tech is cost-effective, scaling deployment is priority
- Emerging tech must be assessed while mature solutions reach market early
- Barriers include inadequate investment, policy bottlenecks, lack of commercial confidence

Bridging innovation and commercial scale key to clean energy transition: Industry leaders

New Delhi, Aug 5

Industry leaders on Wednesday stressed the need to accelerate the transition of new energy technologies from evaluation to large-scale commercial adoption, saying the biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment.

"The biggest challenge is not innovation but bridging the gap between proven technologies and widespread deployment. - Industry leaders at Think Change Forum"

Speaking at the Think Change Forum on "New Energy: Taking It from Evaluation to Adoption", Dr. Ajay Mathur, former Director General of the International Solar Alliance (ISA), said new technologies must be rigorously evaluated during their development, but once they have matured and proven to be cost-effective, the focus should shift towards scaling up their deployment.

He said technologies continue to evolve throughout the innovation journey, making evaluation essential. However, he noted that once a technology has demonstrated its maturity and economic viability, extending the evaluation phase unnecessarily can delay its wider adoption. According to him, large-scale deployment of proven technologies is now the key priority.

"It is equally important to continue assessing emerging technologies while ensuring that mature solutions reach the market as early as possible," Mathur added. He said discussions at forums such as these can provide valuable insights for policymakers, industry

April 10, 2025

sarkaritel.com

NLC India Limited

NEW DELHI • Government of India Enterprise • www.nlcindia.in

HOMEHONORABLECOUNCIL OF MINISTERSMP'SMINISTRIESPSUSTATE GOVERNMENTSEMBASSIESRAILWAYSSTD CODES

Home » National News » Clean Energy Transition Needs Faster Commercial Adoption

SEARCH

Enter keyword.

sarkaritel.com

CLEAN ENERGY TRANSITION NEEDS FASTER COMMERCIAL ADOPTION

Scaling Solutions. Accelerating Action. Powering a Sustainable Future.

Industry leaders have called for **faster commercial adoption of clean energy technologies**, stressing that the biggest challenge is not innovation but scaling proven solutions. Experts said bridging the gap between successful pilot projects and large-scale deployment is crucial to accelerating India's clean energy transition.

Key Highlights

- Industry leaders urge **faster commercial adoption** of clean energy technologies.
- Dr. Ajay Mathur** says proven technologies should move quickly to large-scale deployment.
- TERI** highlights investment and policy gaps slowing market adoption.
- Experts call for stronger collaboration to accelerate the **clean energy transition**.

New Delhi, Aug 06: Industry experts on Wednesday emphasised that the next phase of **India's clean energy transition** depends less on discovering new technologies and more on **scaling commercially proven solutions**. Speaking at the **Think Change Forum** on "**New Energy: Taking It from Evaluation to Adoption**", leaders from the renewable energy sector highlighted the need to reduce the time between technology validation and large-scale deployment. They said overcoming this gap will be critical to achieving India's long-term **energy transition** and **net-zero ambitions**.

Dr. Ajay Mathur, former Director General of the **International Solar Alliance (ISA)**, said **technology evaluation** remains essential during the innovation stage to ensure reliability, efficiency, and cost-effectiveness. However, he stressed that once a technology has demonstrated **technical maturity** and **commercial viability**, policymakers and industry should shift their focus towards **rapid deployment** rather than prolonging the evaluation process. According to him, delaying the adoption of proven technologies slows the pace of the clean energy transition and reduces the potential economic and environmental benefits.

Sharing a similar perspective, **AK Saxena**, Senior Director at **The Energy and Resources Institute (TERI)**, noted that many promising **clean energy technologies** fail to progress beyond the pilot stage despite delivering encouraging results. He attributed this to **limited investment, regulatory hurdles, policy bottlenecks, lack of commercial confidence, and financing challenges**. Saxena said the priority should be creating a stronger bridge between **innovation** and **commercial-scale implementation**, enabling technologies to move from demonstration projects to widespread market adoption more efficiently.

The discussions also highlighted the importance of continued collaboration among **government, industry, researchers, and technology developers** to build a supportive ecosystem for emerging energy solutions. Experts said that while innovation must continue, equal attention should be given to creating favourable policies, improving financing mechanisms, and strengthening market confidence. Accelerating the deployment of mature technologies will play a vital role in expanding **renewable energy**, improving **energy security**, reducing emissions, and supporting India's transition to a **low-carbon economy**.

Industry leaders believe that bridging the gap between innovation and commercial deployment is essential for accelerating India's clean energy transition and achieving sustainable economic growth.

Gallery







Thank You

