



6th Edition

SUSTAINABLE BHARAT

Advanced Clean Energy Workshop 2026

WORKSHOP AGENDA

21–22 August 2026

CODISSIA Trade Fair Complex
Coimbatore, Tamil Nadu

DAY - 1 21st Aug 2026	
Time	Topic
	Inaugural Session Theme: <i>Battery Energy Storage Systems: Powering India's Clean Energy Transition</i> Session Objective: To establish the strategic importance of Battery Energy Storage Systems (BESS) in enabling renewable energy integration, grid resilience, and a sustainable energy future while setting the context for the conference's key thematic discussions.
10:45 AM – 10:50 AM	Lighting of the Lamp
10:50 AM – 11:00 AM	Welcome Address Dr. Raguram Arjunan President, Sustainability and Energy Practitioners Association (SEPA)
11:00 AM – 11:10 AM	Inaugural Address Mr. V. Rangaswamy President, CODISSIA
11:10 AM – 11:20 AM	Special Address Dr. Ilja Pawel Renewable Energy Academy (RENAC AG), Germany
11:20 AM – 11:30 AM	Keynote Address Mr. Krishnan Komandur Chief Executive Officer, Adar Poonawalla Clean City Initiative
11:30 AM – 11:40 AM	Chief Guest Address Dr. Mohammad Rihan Director General, National Institute of Solar Energy (NISE)
11:40 AM – 11:45 AM	Launch of the SEPA Students Council

Time	Topic
TECHNICAL PRESENTATION - I Commercial & Industrial (C&I)	
11:45 AM – 12:10 PM	Optimizing Industrial Energy Flexibility Through Advanced Battery Energy Storage Systems Synopsis: Battery Energy Storage Systems (BESS) are becoming integral to intelligent and flexible industrial energy infrastructure. This session explores advanced approaches to integrating BESS with industrial power systems through Behind-the-Meter (BTM) applications, Energy Management Systems (EMS), Distributed Control Systems (DCS), industrial automation, and digital energy management . It will also examine renewable energy integration, energy arbitrage, Time-of-Day (ToD) tariff optimization, peak demand management, real-time monitoring, and predictive analytics , highlighting how digital technologies enhance operational resilience, optimize asset performance, and support industrial decarbonization. Speaker: Mr. Yuki Furuya Deputy Head – Energy & Sustainability Business & Head – Corporate Sales, Yokogawa India Limited
TECHNICAL PRESENTATION -II Commercial & Industrial (C&I) - Scale Battery Energy Storage Systems	
12:10 PM – 12:35 PM	Designing Reliable Battery Energy Storage Systems: From Advanced Battery Technologies to Integrated System Architecture Synopsis: As Battery Energy Storage Systems (BESS) become a cornerstone of India's clean energy transition, designing reliable, safe, and scalable energy storage solutions is increasingly critical. This session will explore advanced battery technologies, including LFP, NMC, and emerging long-duration energy storage (LDES) solutions, alongside key engineering considerations such as Battery Management Systems (BMS), Power Conversion Systems (PCS), power electronics, modular system architecture, thermal management, safety engineering, lifecycle performance, and technology selection . The session will also highlight evolving manufacturing practices and industry standards that are shaping next-generation BESS deployments for industrial and utility applications. Speaker: Mr. Sampath Kumar Chief Executive Officer, FESTON S.E.V.
TECHNICAL PRESENTATION - III Utility - scale Battery Energy Storage Systems	
12:35 PM – 01:00 PM	Utility-Scale Battery Energy Storage Systems: Enabling Grid Flexibility and Renewable Energy Integration Synopsis: With the rapid growth of renewable energy, utility-scale Battery Energy Storage Systems (BESS) are becoming a critical enabler of a reliable, flexible, and resilient power system. This session will explore the role of large-scale BESS in renewable energy integration, grid flexibility, Firm and Dispatchable Renewable Energy (FDRE), ancillary services, frequency regulation, peak demand support, transmission congestion management, and grid code compliance . It will also provide insights into deployment strategies, utility-scale project implementation, and the evolving role of BESS in strengthening India's clean energy infrastructure and accelerating the energy transition. Speaker: Sungrow

Time	Topic
PANEL DISCUSSION - I Commercial & Industrial (C&I) - Scale Battery Energy Storage Systems	
02:00 – 03:30	Commercial & Industrial Battery Energy Storage Systems: Accelerating Adoption Through Innovation, Policy and Industry Collaboration Synopsis: Commercial & Industrial (C&I) Battery Energy Storage Systems (BESS) are emerging as a strategic enabler of industrial decarbonization, energy resilience, and sustainable manufacturing. As India advances its clean energy transition, scaling C&I BESS requires a balanced approach encompassing technology innovation, investment, supportive policy frameworks, project bankability, and cross-sector collaboration. This panel brings together industry leaders, technology providers, industrial end users, project developers, and engineering experts to examine the strategic priorities shaping the next phase of C&I BESS deployment in India.
02:00 PM – 02:05 PM	Welcome & Panel Introduction (5 Minutes) Opening remarks by the moderator, introduction of the panelists, and an overview of the discussion objectives.
02:05 PM – 02:20 PM	Industry Perspectives (15 Minutes) Each panelist will share brief opening remarks, presenting their perspectives on the evolving C&I BESS market, emerging opportunities, and key priorities for India's industrial energy transition.
02:20 PM – 02:32 PM	Theme 1: Creating a Strong Commercial Case for Industrial Battery Energy Storage Systems (12 Minutes) - Evaluating investment drivers, project bankability, lifecycle value, and financing considerations for industrial BESS. - Strengthening industrial competitiveness through energy resilience, operational efficiency, demand optimization, and optimized energy costs. Discussion: What will enable C&I BESS to transition from early adoption to mainstream industrial investment?
02:32 PM – 02:43 PM	Theme 2: Engineering Excellence, Safety & Deployment of Industrial BESS (11 Minutes) • - Delivering high-performance BESS projects through robust engineering, system integration, and deployment best practices. - Advancing safety, standards compliance, lifecycle performance, quality assurance, and operational reliability across industrial applications. - Lessons learned from industrial BESS deployments, including project execution, risk mitigation, and long-term asset performance.
02:43 PM – 02:54 PM	Theme 3: Policy, Investment, Standards & Market Enablement (11 Minutes) - Examining policy and regulatory frameworks, financing mechanisms, industry standards, certification, and compliance requirements supporting C&I BESS deployment. - Strengthening collaboration across industry, government, OEMs, EPCs, financial institutions, and industrial consumers to build a sustainable energy storage ecosystem. Discussion: How can policy, investment, and industry collaboration accelerate the large-scale deployment of C&I Battery Energy Storage Systems in India?
02:54 PM – 03:05 PM	Theme 4: Industrial Energy Transition & Future Market Outlook (11 Minutes) - Positioning C&I BESS as a catalyst for industrial decarbonization, renewable energy integration, flexible energy systems, and manufacturing competitiveness. - Exploring emerging business models, industrial electrification, future market opportunities, and strategic priorities for scaling C&I BESS. Discussion: What should be the industry's strategic priorities to build a resilient, competitive, and future-ready industrial energy ecosystem?
03:05 PM – 03:30 PM	Audience Q&A & Closing Remarks (25 Minutes) An interactive discussion with delegates, followed by the moderator's summary of key insights, recommendations, and closing remarks.
Moderator Mr. Nikhil Managing Director, Shunya Eco-Systems & Energy Solutions Panelists Mr. Prabakaran Parameshwaran Product Head, FESTA Solar Private Limited Mr. Adithya Ramalingam Executive Manager, Yokogawa India Limited Mr. Anil Pillai Deputy Chief Engineer (Retd.), KSEB Ltd Dr. Balaji Srinivasan Head of Engineering, Bosch Global Software Technologies Mr. Mohanraj Director, JSS Renewables Energy India Private Limited	

Time	Topic
PANEL DISCUSSION - II Utility - scale Battery Energy Storage Systems	
03:30 PM – 05:00 PM	Expert Panel Discussion Utility-Scale Energy Storage: Powering India's Future Grid Synopsis: Utility-scale Battery Energy Storage Systems (BESS) are emerging as a cornerstone of India's evolving power system, supporting renewable energy integration, energy security, and long-term grid resilience. As deployment accelerates, the focus is shifting beyond technology towards scalable procurement frameworks, commercially viable business models, utility transformation, and market reforms. This panel brings together utility leaders, renewable energy developers, technology providers, and industry experts to discuss the strategic priorities that will shape India's utility-scale energy storage ecosystem.
03:30 PM – 03:35 PM	Welcome & Panel Introduction (5 Minutes) Opening remarks by the moderator, introduction of the panel discussion, and an overview of the session objectives.
03:35 PM – 03:50 PM	Industry Perspectives (15 Minutes) Each panelist will share their perspectives on the evolving utility-scale energy storage market, India's power sector transformation, and emerging opportunities for large-scale deployment.
03:50 PM – 04:01 PM	Theme 1: Renewable Integration, Utility Procurement & Project Delivery (11 Minutes) - Procurement pathways for standalone BESS, co-located storage, and hybrid renewable energy projects. - Project execution, EPC readiness, supply chain resilience, and delivery at scale. Are current procurement frameworks and tendering models sufficient to accelerate utility-scale BESS deployment across India? How can developers, EPCs, utilities, and technology providers improve project execution and reduce implementation risks?
04:01 PM – 04:12 PM	Theme 2: Market Design, Revenue Stacking & Investment (11 Minutes) - Commercial viability through market design, ancillary service markets, capacity mechanisms, and diversified revenue streams. - Financing strategies, investment confidence, bankability, and long-term asset value. Which market mechanisms will be critical to establishing commercially sustainable utility-scale BESS projects? How can India strengthen investor confidence while ensuring financially viable utility-scale energy storage deployment?
04:12 PM – 04:23 PM	Theme 3: Grid Planning, System Operations & Utility Transformation (11 Minutes) - Utility planning for renewable-intensive power systems, operational flexibility, digital utilities, and intelligent grid management. - Grid visibility, forecasting, asset optimization, and operational readiness for next-generation power systems. How should utilities redefine planning, operations, and asset management to support increasing renewable energy and storage penetration? What role will digitalization and intelligent grid technologies play in strengthening system resilience?
04:23 PM – 04:35 PM	Theme 4: Policy, Market Evolution & India's Utility-Scale Energy Storage Roadmap (12 Minutes) - Storage procurement policies, domestic manufacturing, long-duration energy storage, resilient supply chains, and future market structures. - Strategic priorities supporting energy security, utility modernization, and the Viksit Bharat 2047 vision. What policy and regulatory reforms are required to unlock the next phase of utility-scale energy storage deployment? What should India's utility-scale energy storage roadmap prioritize to build a globally competitive and resilient power sector?
04:35 PM – 05:00 PM	Audience Q&A & Closing Remarks (25 Minutes) An interactive discussion with delegates, followed by the moderator's summary of key insights, recommendations, and closing remarks.
Moderator Dr. Raguram Arjunan Founder & Managing Director, CARES Renewables Panelists Mr. Sujoy Ghosh Vice President & Country Managing Director (India), First Solar Mr. George Prothasis Deputy Chief Engineer (Generation), KSEBL Senior Representative Yokogawa India Private Limited Mr. Gokul Senior Manager, Waaree Energies Ltd. Senior Representative Sungrow	
TECHNICAL PRESENTATION - III Electrical & Lightning Protection	
05:00 PM – 05:20 PM	Electrical Protection Engineering for Solar PV & Battery Energy Storage Systems Synopsis: Electrical protection is fundamental to ensuring the safety, reliability, and long-term performance of Solar PV and Battery Energy Storage Systems. This session will explore engineering approaches to lightning protection, surge protection, earthing and bonding, protection coordination, power quality, inspection and maintenance practices to enhance personnel safety, safeguard critical assets, and improve system resilience across utility-scale and commercial & industrial renewable energy projects.
	Speaker Mr. Shaji S Technical Lightning Protection Engineer BLITZS Electric Pvt. Ltd.

DAY - 2 22nd Aug 2026	
Time	Topic
PANEL DISCUSSION - I Environmental, Social and Governance (ESG)	
10:00 AM – 10:10 AM	Opening & Context (10 Minutes) Welcome, summit framing, the role of SEPA, and the objectives of the ESG session. Speaker SEPA
10:10 AM – 10:25 AM	Framing Keynote (15 Minutes) ESG for Sustainable Bharat Synopsis: Why ESG for Sustainable Bharat: climate risk, BRSR & ESG regulations, and India's energy transition.
10:25 AM – 10:35 AM	Panel Introduction (10 Minutes) Introduction of the panelists representing policy, corporate, finance, and technology/practitioner perspectives.
10:35 AM – 11:05 AM	Panel Discussion – ESG in Energy Operations (30 Minutes) Utilities and industry case studies covering renewable energy integration, energy efficiency, digital transformation, and community initiatives.
11:05 AM – 11:30 AM	Panel Discussion – Green Finance & Carbon Markets (25 Minutes) Green finance, carbon credits, MRV, and developing bankable project pipelines for India's energy sector.
11:30 AM – 11:40 AM	Audience Poll & Interactive Q&A (10 Minutes) Live poll on ESG barriers and priorities, followed by 3–5 audience questions.
11:40 AM – 11:55 AM	Panel Discussion – Roadmaps & Partnerships (15 Minutes) Three to five-year roadmaps, regional clusters (Coimbatore), and SEPA-led practitioner networks.
11:55 AM – 12:00 PM	Closing & Call-to-Action (5 Minutes) Three key takeaways, invitation to SEPA working groups, and follow-up practitioner initiatives.
Moderator Dr. Shruti Sharma Associate Professor, TERI Panelists Mr. M. Anil Pillai Deputy Chief Engineer (Retd.), KSEB Ltd. Mr. Murugesh Halan Executive Council Member, SEPA Mr. Prakhar Gupta Lead – Strategic Initiatives, Ascentium India Mr. Pradeep Raj COO, AIC RAISE Mr. Gaurav Juneja (Virtual) Director, BDO	

Time	Topic
PANEL DISCUSSION - II Agrivoltaics (APV)	
	Expert Panel Discussion Agrivoltaics: From Demonstration Projects to Commercial Adoption
12:00 PM – 01:30 PM	Synopsis: Agrivoltaics is transforming land use by integrating renewable energy generation with agricultural production, creating opportunities for climate-resilient farming, improved land productivity, and diversified rural livelihoods. As the sector moves beyond research and demonstration projects, large-scale adoption depends on crop-centric engineering, structural innovation, product reliability, farmer participation, and commercially viable implementation models. This panel brings together researchers, engineers, plantation practitioners, Farmer Producer Organisations (FPOs), and industry experts to discuss the next phase of Agrivoltaic deployment.
12:00 PM – 12:05 PM	Welcome & Panel Introduction (5 Minutes) Opening remarks by the moderator, introduction of the panelists, and an overview of the discussion objectives.
12:05 PM – 12:20 PM	Opening Perspectives (15 Minutes) Each panelist shares perspectives on the evolution of Agrivoltaics, emerging opportunities, implementation challenges, and the path towards commercial adoption.
12:20 PM – 12:37 PM	Theme 1: Structural Engineering & Crop-Centric System Design (17 Minutes) • Structural engineering for fixed, tracking, elevated, and canopy-based Agrivoltaic systems, including mounting height, row spacing, tilt optimisation, fabrication quality, and retrofit opportunities across plantations and agricultural landscapes. • Engineering solutions that support farm mechanisation, crop accessibility, long-term structural integrity, and optimum land productivity. • Can conventional PV structures meet Agrivoltaic requirements, or does the sector need purpose-built structural systems? • Should system design be driven by crop requirements or energy generation targets?
12:37 PM – 12:54 PM	Theme 2: TeaVoltaics, Field Demonstration & Agronomic Performance (17 Minutes) • Experiences from TeaVoltaics, plantation-based Agrivoltaics, research farms, and demonstration projects, including crop–solar integration, crop microclimate regulation, biodiversity enhancement, irrigation efficiency, and long-term field performance. • Converting research outcomes into scalable deployment models across plantations and diverse cropping systems. • Has the industry generated sufficient field evidence to move Agrivoltaics beyond demonstration projects? • Which lessons from TeaVoltaics and field deployments should shape future Agrivoltaic projects?
12:54 PM – 01:11 PM	Theme 3: Product Innovation, EPC Readiness & Quality Assurance (17 Minutes) • Product innovation for Agrivoltaic applications, including structural systems, electrical balance-of-system components, environmental durability, installation quality, lifecycle performance, and adapting products for agricultural operating environments. • Manufacturing capability, EPC readiness, quality frameworks, supply-chain adaptation, and deployment practices supporting reliable Agrivoltaic systems. • Are today's PV products and EPC practices ready for Agrivoltaic applications? • Will Agrivoltaics require a new generation of products, standards, and engineering practices?
01:11 PM – 01:25 PM	Theme 4: Farmer Participation, Business Models & Commercial Adoption (14 Minutes) • Farmer Producer Organisations (FPOs), plantation ownership models, farm-level revenue diversification, local cropping cycles, and integrating Agrivoltaics into existing agricultural practices. • Collaboration among farmers, research institutions, developers, EPCs, manufacturers, utilities, and government to enable commercially viable Agrivoltaic ecosystems. • What will convince farmers to adopt Agrivoltaics at scale? • Who will drive commercial adoption—research institutions, industry, or farmers?
01:25 PM – 01:30 PM	Closing Remarks (5 Minutes) Summary of key insights, strategic recommendations, and the future outlook for Agrivoltaics.
Moderator Ms. Naina Gautam Editor & AIR Podcaster, Sustainability Karma Panelists Dr. Dhirendra Singh Professor (Retd.), Centre of Excellence for Agrivoltaics, ICAR–IARI Dr. R. Mahendiran Professor, Department of Renewable Energy Engineering, AEC&RI, TNAU Mr. Sivakumar Managing Director, IBS Tea Plantations Pvt. Ltd. Mr. Gokul Founder & Structural Consultant, Grade 1 Designs Mr. P. Kaliathal Pattiappan Pasumai Thennai Urpathiyalarkal Niruvanam (FPO), Perumpathi, Pollachi (North)	

Time	Topic
PANEL DISCUSSION - II Carbon Capture, Utilization & Storage (CCUS)	
02:00 PM – 03:30 PM	Expert Panel Discussion Carbon Management Through CCUS: Accelerating Industrial Decarbonisation Synopsis: Carbon Capture, Utilization and Storage (CCUS) is emerging as a critical pathway for reducing emissions from hard-to-abate industries while supporting long-term industrial competitiveness. As industries move beyond pilot projects, large-scale deployment will depend on commercially viable carbon management strategies, utilisation pathways, investment models, supportive policy frameworks, and integrated carbon value chains. This panel will explore the opportunities and challenges shaping the future of CCUS deployment.
02:00 PM – 02:05 PM	Welcome & Panel Introduction (5 Minutes) Opening remarks by the moderator, introduction of the panelists, and an overview of the discussion objectives.
02:05 PM – 02:20 PM	Opening Perspectives (15 Minutes) Panelists share their perspectives on the role of CCUS in achieving industrial decarbonisation, enabling carbon management, and supporting the transition towards net-zero industries.
02:20 PM – 02:37 PM	Theme 1: CCUS Deployment Across Hard-to-Abate Industries (17 Minutes) • Sector-specific deployment pathways for cement, steel, refineries, chemicals, power generation, and other emission-intensive industries. • Integrating carbon capture technologies into existing industrial operations while balancing technical feasibility, operational reliability, and commercial viability. • Which industrial sectors are ready to transition from pilot projects to commercial CCUS deployment? • How can industries balance decarbonisation with operational competitiveness?
02:37 PM – 02:54 PM	Theme 2: Carbon Utilisation, Removal & Emerging Carbon Value Chains (17 Minutes) • Carbon utilisation pathways, Direct Air Capture (DAC), carbon removal technologies, circular carbon economy, and developing markets for captured CO₂. • Building commercially sustainable carbon value chains through industrial applications, innovative products, and emerging business opportunities. • Can carbon become a valuable industrial resource rather than an emission liability? • Which utilisation pathways offer the strongest commercial potential?
02:54 PM – 03:11 PM	Theme 3: Carbon Markets, Investment & Policy Enablers (17 Minutes) • Carbon market mechanisms, MRV frameworks, financing models, investment readiness, regulatory certainty, and incentives supporting commercial CCUS deployment. • Creating bankable projects through transparent carbon accounting, credible verification systems, and long-term policy support. • Can commercial CCUS scale without mature carbon markets? • What policy interventions are most critical to accelerate investment?
03:11 PM – 03:25 PM	Theme 4: Building Integrated Carbon Management Ecosystems (14 Minutes) • Industrial clusters, CO₂ transport and storage infrastructure, cross-sector collaboration, technology partnerships, and integrated carbon management ecosystems. • Accelerating large-scale deployment through collaboration among industry, technology providers, policymakers, research institutions, and investors. • Should India prioritise industrial CCUS hubs over standalone projects? • What will define the next phase of commercial CCUS deployment?
03:25 PM – 03:30 PM	Closing Remarks (5 Minutes) Summary of key insights, strategic recommendations, and the future outlook for CCUS in accelerating industrial decarbonisation.
Moderator Ms. Purvi Jha Director, Excelsiors Panelists Mr. Kavin Kumar Kandasamy Founder & Chief Executive Officer, ProClima Mr. M. Venkata Krishnan Senior Commercial Advisor & Developer – Water, Sustainability & Energy Representative – EnClient Independent CCUS Consultant	
SESSION - 4	
03:30 PM – 03:40 PM	Valedictory Session Valedictory Address, Closing Remarks & Vote of Thanks Speaker Mr. Mohanraj Executive Council Member, SEPA
03:40 PM – 04:30 PM	Networking