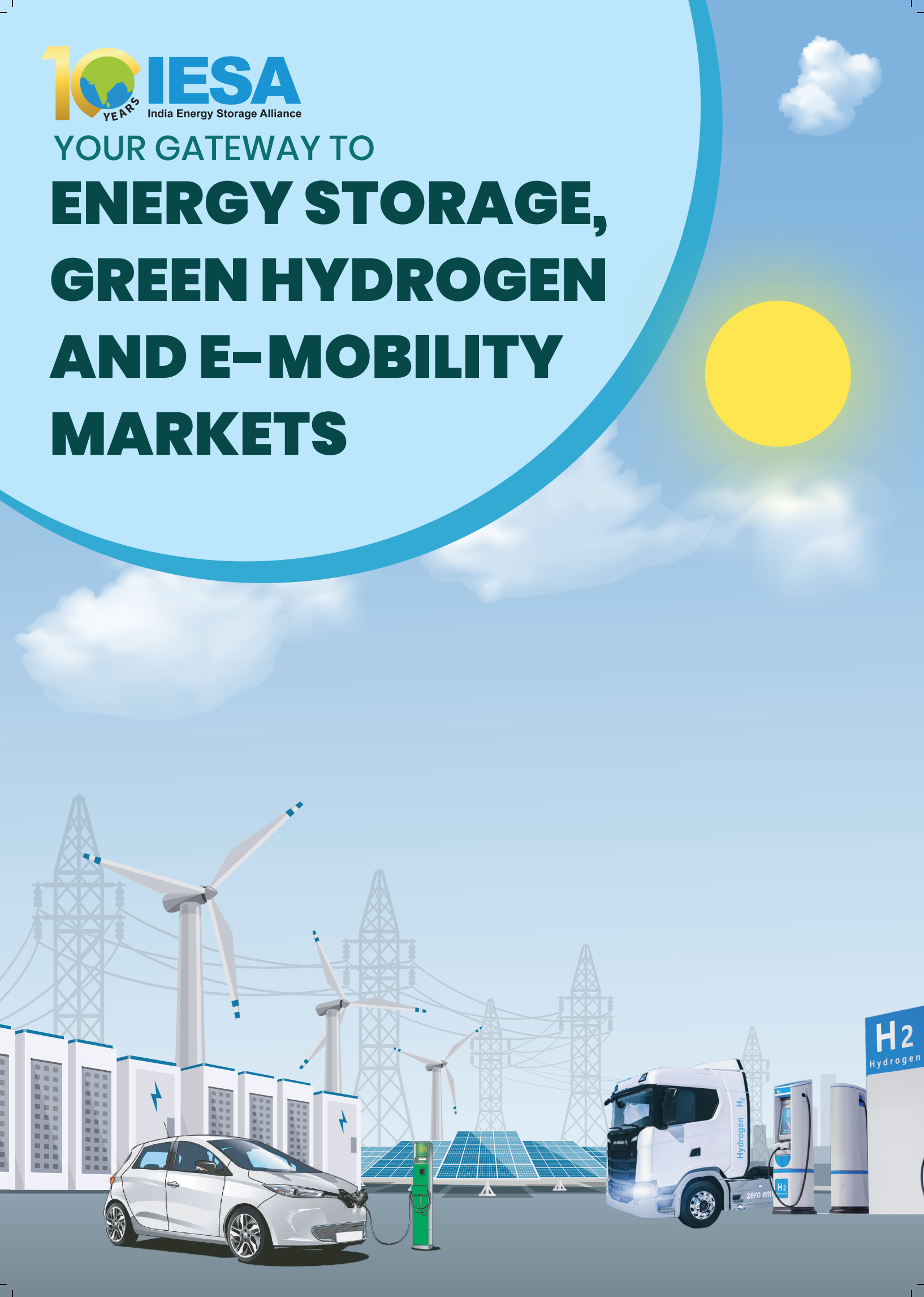




YOUR GATEWAY TO
**ENERGY STORAGE,
GREEN HYDROGEN
AND E-MOBILITY
MARKETS**



ABOUT INDIA ENERGY STORAGE ALLIANCE (IESA):

India Energy Storage Alliance (IESA) is a leading industry alliance focused on the development of advanced energy storage, e-mobility technologies, green hydrogen, and microgrids in India. Founded in 2012, by Customized Energy Solutions (CES), IESA's vision is to make India a global hub for R&D, manufacturing, and adoption of advanced energy storage, e-mobility, and green hydrogen technologies.

IESA has been at the forefront of shaping an enabling policy and industry ecosystem for the adoption of energy storage, e-mobility, green hydrogen, and emerging clean technologies in India. In the last decade, IESA has grown into a proud network of 160+ member companies, encompassing industry verticals from energy storage, EV manufacturing, EV charging infrastructure, green hydrogen, microgrids, power electronics co., renewable energy co., research institutes and universities, and cleantech startups.

ABOUT IESA MEMBERSHIP:

IESA member network is built to help its members understand the various energy storage, electric vehicle and green hydrogen technologies, business applications and intertwined policy/regulatory issues. IESA members are eligible for receiving special discounts for all IESA reports and events. IESA works closely with its members to help them make an informed decision on technology adoption, target markets, and conduct promotional/marketing activities of their products and services.

ABOUT IESA LEADERSHIP COUNCIL (LC):

IESA Leadership Council (LC) was formed in 2016 to allow IESA members to play an active role in driving policy priorities for the industry. Individual representatives from leadership member companies constitute the Leadership Council and lead different IESA working groups focusing on policy, financing and technical issues such as standards. IESA LC members lead IESA interactions with various government ministries and regulators through roundtables and meetings to provide inputs for policies. IESA Leadership Circle members can also propose new initiatives to be started by IESA or drive the existing initiatives. LC members also benefit from regular monthly calls with IESA's Executive Director and research team.



Over the past years, IESA has launched new initiatives to catalyze market growth. IESA's Leadership Council helps drive the policy agenda for IESA. IESA's vision is to make India a global leader in research, manufacturing, and adoption of advanced energy storage, microgrid, hydrogen and e-mobility technologies by 2022.

IESA INITIATIVES



IESA-WOMEN IN ENERGY (IESA-WE)

IESA launched Women in Energy for connecting, educating, inspiring, networking & empowering women in clean energy transition. IESA has rich repository of resources and has also started IESA Academy. With IESA's strong professional network, the key objective of this initiative is to promote women's participation and strengthen gender diversity and equity in the emerging areas like energy storage & electric mobility sector.



EV ADOPTERS CIRCLE

IESA has introduced EV Adopter's Circle (IESA-EVAC) to help corporates in transition towards xEV fleet and setting up EV charging infrastructure for their employees, customers, goods carrier & goods delivery etc by knowledge sharing and working closely with industry stakeholders in the ecosystem. Corporates can take step by step approach to evaluate and comfortably pledge to migrate towards xEV fleet and /or arrange to provide EV charging infrastructure at their premise.



MAKE IN INDIA (IESA INITIATIVE)

AtmaNirbhar Bharat - Energy Storage Manufacturing Roadmap for India, roundtable discussions to accelerate advanced energy storage manufacturing, supply chain & recycling, ecosystem. The roundtable was attended by 100+ key industry stakeholders. It was graced by some eminent dignitaries' like Mr. Suresh Prabhu, India's Sherpa to G20, G7, Member of Parliament, Mr. Satendra Singh, Joint Secretary, Ministry of Mines, NITI Aayog and numerous international partners.



MIGHT (MOBILITY AND INFRASTRUCTURE WITH GREEN HYDROGEN TECHNOLOGIES)

The MIGHT initiative is intended to explore opportunities for India to exploit the potential of green hydrogen technologies for green energy acceleration and the adoption of clean transport. IESA's focus is on the applications of hydrogen for industrial and agricultural applications beyond electricity generation. IESA works to identify and removal of any barriers as well as work on building an innovation ecosystem for green hydrogen technologies.



IESA RE-USE & RECYCLING INITIATIVE (IRRI)

As the volume of battery manufacturing grows, a parallel system of disposal and recycling will be essential to minimize the detrimental impact on the environment. Potentially, all the metal elements used in a Li-ion battery namely Li, Co, Ni, Mn, Co, and Al could be recovered and re-used for either battery or other applications. However, currently, only Cobalt is partly recovered due to its high cost and concerns regarding its availability.



MOVING ONWARDS VEHICLE ELECTRIFICATION (MOVE)

This initiative to help India move towards vehicle electrification and build a robust ecosystem for EV manufacturing & adoption. IESA is working with various stakeholders in the mobility sector to address barriers and focus on the aspects related to batteries for EVs and charging infrastructure.



IESA WORKING GROUPS

Three working groups on Business, Policy and Technology to discuss and gather inputs on various state & central government policies, tenders and new technologies.



ENERGY STORAGE STANDARDS TASKFORCE

IESA's Energy Storage and Standards Taskforce works on performance & safety aspects of energy storage. IESA is a part of the BIS standards committee (ETD-52) and provides inputs on new standards for Li-ion cells, BMS, ESS systems and charging infrastructure.



INDUSTRY REPORT & MARKET SURVEY

IESA releases India Energy Storage Market overview report every year. It also releases white papers, case studies on various topics with co-operation from members and industry partners.



MICRO (THE MICROGRID INITIATIVE FOR CAMPUS AND RURAL OPPORTUNITIES)

In 2016, IESA set a goal of reducing the cost of electricity from microgrids in India by 30% to 50% by 2020 and have been working on bringing together various stakeholders to achieve this target. Phase 1 of the initiative focuses on energy access for remote communities and Phase 2 will focus on the campus microgrids.



BEYOND BATTERIES INITIATIVES

IESA's Beyond Batteries Initiative (BBI) is an effort for facilitating new research and adoption to drive the reduction of cost of the fuel cell in India. BBI works with various industry stakeholders from fuel cell and other storage technologies like thermal storage, ultra-capacitors, and mechanical storage. IESA is focusing on some specific applications for beyond battery storage and its manufacturing & implementation in India.



I-LAB (IESA-LEAD ACID BATTERY FORUM)

This initiative is to help the current lead acid manufacturers to improve their technology and also to diversify into newer application areas. We also organize various workshops and seminars on advanced lead acid manufacturing and encourage tender authorities to include advanced lead acid in the technology list.



INNOVATION & STARTUP

IESA's Innovation & Startup initiative works to launch incubators focused on developing next generation storage, EV and microgrid technologies. IESA organizes start up competition for new companies/startups to facilitate the discussion between potential investors & member companies.



INDUSTRY ACADEMIC PARTNERSHIP

IESA works with top research universities, educational institutions, and government organizations like DST, MEITY, and other R&D national labs to address the need for training and skill development for the energy storage and e-mobility sectors. IESA organizes masterclasses, workshops, webinars, and hands-on training sessions, along with providing joint fellowship & scholarships to promote research in India.



INDIA ENERGY STORAGE DATABASE (IESDB)

IESDB is an up-to-date database of energy storage and microgrid projects in India including the data of manufacturing plants, research institute, recycling, and EV charging stations in India. IESA works with its member network to populate useful data and show the status of energy storage projects in India.



IESA ACADEMY

IESA Academy works on developing the right skillset and capacity needed for the green industries of tomorrow in the energy storage & e-mobility sector. IESA Academy regularly organizes training courses, workshops, and masterclasses through industry-academia collaborations with the aim to empower companies to enter the energy storage market as well as help existing manufacturers expand their business by imparting current/potential employees with the right skillset.



IESA STORE

IESA launched the online beta version of the IESA Store (buyer-seller platform for energy storage & EV products) - to provide a platform for the purchase of various products. These include energy storage, advanced battery (lead-acid, Li-ion and other technologies), solar, power electronics (inverter, BMS, PCS etc), components, raw materials, electric vehicle (2W, 3W, 4W etc.), charging infra, EV components and etc.



GLOBAL ENERGY STORAGE INDEX (GESI)

GESI is the sectorial index for global energy storage market. The index is designed to track the energy storage industry comprising technology manufacturers, energy storage solutions providers, raw material providers, component suppliers and power electronics companies. CES - GESI includes companies from across the globe including USA, China, Japan, South Korea, Switzerland, India, and Canada etc.



INDIA BATTERY SUPPLY CHAIN COUNCIL (IBSCC)

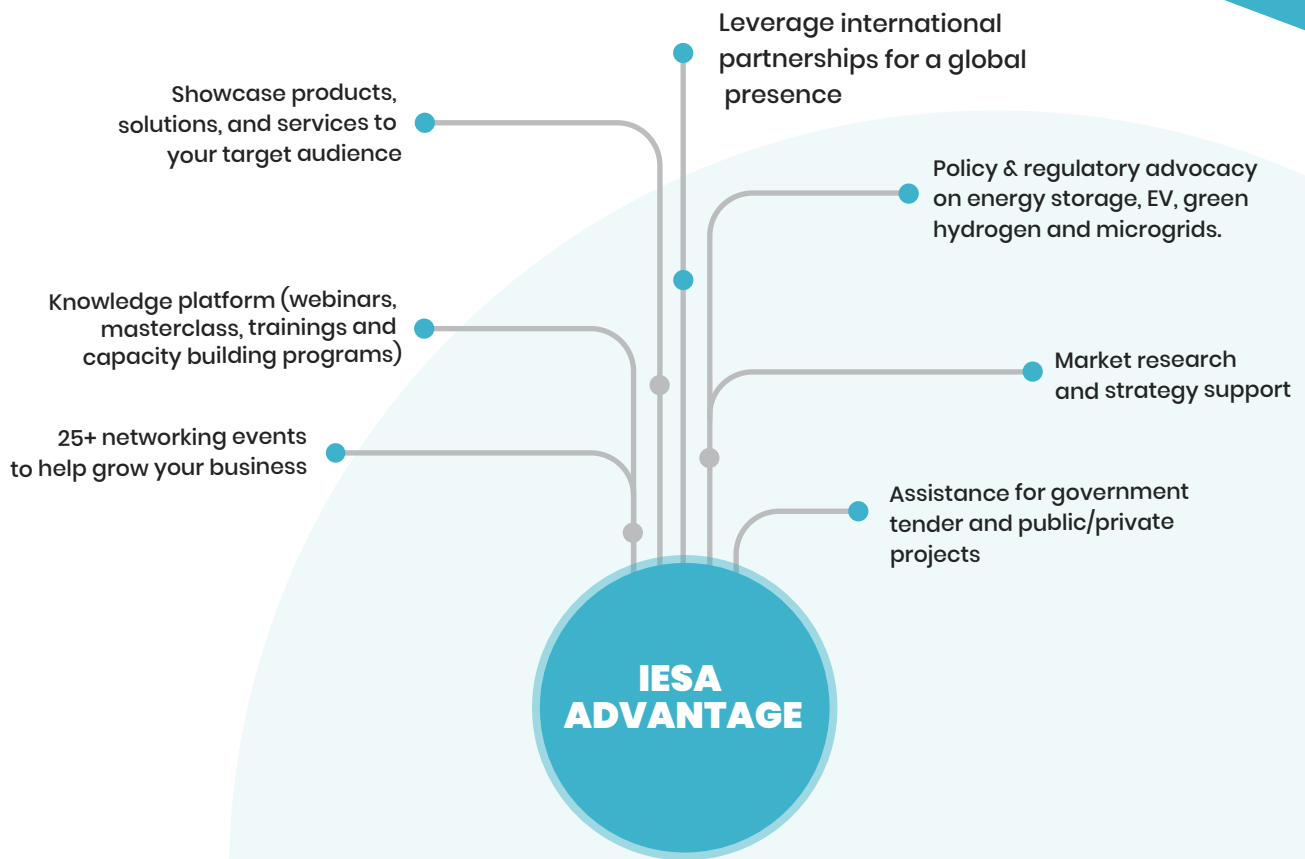
India Battery Supply Chain Council (IBSCC) was launched in 2021, to work on the complete development of the battery supply chain needed to support upcoming giga factories in India. IBSCC will serve as a common platform for all relevant stakeholders to work on the complete development of the battery supply chain needed to support upcoming giga factories in India. The Summit held in Delhi in December 2021 and was attended by close to 150 members including eminent industry leaders, think tanks, scholars, and policymakers. The discussions at the summit ranged from a talk on ACC PLI Program, supply chain requirement for advanced battery Gigafactories in India, battery manufacturing supply chain: raw materials processing, equipment, and manufacturing process, and new research & innovation in energy storage, recycling, and urban mining.



GREEN JOBS PORTAL

IESA launched its new jobs portal exclusively for green jobs opportunities in India. The new platform will help identify the right candidates for employers in the green energy and cleantech industry space.





IESA works in three major verticals which are



POLICY & ADVOCACY

IESA Leadership Council working group members continuously work with the state and central government authorities to create energy storage policies for India. It has also help its member companies in policy intervention and support.



PROJECTS

IESA supports various tender authorities to create energy storage tenders in India and works with private parties to create business case for energy storage projects.



PROGRAMMES

IESA organizes various capacity building workshops, seminars and webinars for its members all year round. It also organizes four national level conference called as India e-Mobility Conclave, India Energy Storage Week, Stationary Energy Storage India and World Energy Storage Day.

IESA outreach channels include weekly newsletters, Emerging Technology News (ETN) magazine, Emerging Tech Radio podcast and various industry reports. IESA has strategic alliances with 30+ global and national associations including China National Energy Storage Alliance (CNESA), European Association for Storage of Energy (EASE), California Energy Storage Alliance (CESA), Germany Energy Storage Alliance (BVES), Energy Storage Canada (ESC), Australian Energy Storage Alliance (AESA) and many more.

