Key Joint Innovation Laboratory for Electrochemical Energy Fire Safety Unveiled at 2026 Disaster Prevention & Mitigation Publicity Week

On May 10, 2026, the Key Joint Innovation Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management (hereinafter referred to as "the Laboratory"), led by China Power, took part in the 2026 Disaster Prevention & Mitigation Publicity Week. The event was jointly organized by the China Fire and Rescue Institute (CFRI), the Beijing Emergency Management Bureau, the Beijing Earthquake Agency, and other institutions. At the event, the Laboratory presented its main technological achievements and integrated solutions for the fire safety of electrochemical energy systems.

The Laboratory showcased a range of new materials, technologies, and equipment developed for electrochemical energy fire safety. Its 5 MWh high-safety liquid-cooled battery container features BMS-based thermal management and coordinated fire protection at both the battery pack and container levels, enabling reliable performance for power grid peak shaving and frequency regulation, and industrial & commercial emergency power supply scenarios. The immersion cooling solution for the 52S battery pack employs the supramolecular immersion thermal runaway suppression technology, effectively preventing the propagation of thermal runaway and providing top-tier safety protection for

lithium-ion batteries. In addition, the Laboratory presented its specially developed supramolecular fire extinguishing agent and portable fire suppression system, which enable efficient extinguishing of lithium-ion battery fires while preventing reignition.

Through face-to-face science communication and immersive experience activities, the Laboratory demonstrated its technical strength in safeguarding energy storage safety and supporting disaster prevention and mitigation. The exhibition attracted large numbers of university faculty, students, and enterprise representatives, and received strong recognition from both experts and the public. Committed to innovation in electrochemical energy fire safety, the Laboratory is building a comprehensive portfolio of advanced technologies and products for energy storage safety, providing technical support for the modernization of emergency management systems and capabilities in electrochemical energy.