

Electricity Security Advisory Board 2026

Making the most of power systems:
delivering security and affordability in the Age of Electricity

Convened by the International Energy Agency (IEA) in Paris on 7 October 2026, the Electricity Security Advisory Board brought together senior experts from industry, utilities, governments, regulators, academia and think tanks to discuss how infrastructure, system operations, markets and investment can support secure and affordable electricity systems.

The event was opened by the IEA's Director for Energy Markets and Security, Shinichi Kihara, and followed by a scene setting presentation by the IEA highlighting its recent and future work on electricity security and electrification.

Hosted by the IEA's Electricity Systems and Markets Division, the event centred on four thematic sessions covering grid infrastructure, storage, investment adequacy and affordability.

Session 1 – Grid infrastructure: Unlocking more value from assets

The session explored how power systems can make better use of existing grid infrastructure while preparing for growing and changing electricity demand. The discussion was informed by findings from the IEA's recent reports [Modernising Grids in the Age of Electricity](#) and [Electricity 2026](#). Participants discussed operational and market measures to increase the capacity available on current networks, including the role of flexible resources, improved visibility for system operators and more flexible connection arrangements. The exchange also covered the continuing need for grid investment, approaches to anticipatory planning under uncertainty, and the governance and allocation of congestion-related risks and costs.

Session 2 – Operations: Ensuring storage delivers system value

The session considered the expanding role of storage in supporting power system operation, from system planning through to real-time balancing. Discussions covered the range of services that different storage technologies and durations can provide, the importance of technology-open approaches suited to the characteristics of individual power systems, and the relationship between system value and investor revenues. Participants also examined how market and regulatory frameworks, including revenue stacking and dynamic and locational signals, can support the efficient siting and operation of storage assets.

Session 3 – Markets: Securing investment for adequacy

The session focused on how electricity markets and adequacy frameworks can support timely investment in adequacy. Participants discussed the balance between providing investors with sufficient long-term certainty and preserving effective market signals, as well as how reliability standards should evolve as system conditions and societal preferences continue to change. The exchange also considered the distinction between capacity and flexibility needs, the role and effectiveness of adequacy mechanisms available and the treatment of prolonged periods of extreme scarcity.



Session 4 – Consumers and investments: Managing affordability under rising system costs

The session examined the affordability implications of rising investment and system costs in the context of electrification, industrial policy and energy security objectives. Discussions addressed how costs are allocated between consumer types as well as across generations, the implications for vulnerable households and the importance of fairness and social acceptance. Participants also considered how retail tariff design and the structure of consumer offers can encourage efficient electrification while remaining understandable and accessible, and how investment recovery can be aligned with broader security and affordability goals.

The discussions provided valuable input that will guide the IEA's future work, informing the forthcoming IEA Electricity 2027 report, the ongoing IEA Ministerial Advisory Panel on Electricity Affordability and expanded work on electricity grids and electricity security.