

Electricity Security Advisory Board

High-Level Meeting

Tuesday, 17 September 2024

Room 2 (ground floor)
9 Rue de la Fédération, 75015, Paris

International
Energy Agency

iea



Background

Electricity currently accounts for just over one-fifth of final energy consumption. With energy and climate strategies increasingly prioritizing electrification, the share of electricity in end-use is projected to double by 2050 to meet international climate commitments. As a result, ensuring electricity security will become increasingly vital for modern societies.

Power systems are undergoing significant transformation to accommodate the growing role of electricity, reduce dependence on imported fuels, and integrate more variable renewable resources and storage across larger interconnections. Digitalization is driving decentralization and greater consumer engagement. However, electricity infrastructure also faces challenges such as development barriers, geopolitical issues, and climate threats. This necessitates a re-evaluation of electricity security, focusing on system adequacy and flexibility, dependencies and coordination within the power sector and across other sectors, and resilience to cyber threats and extreme weather events.

The Electricity Security Advisory Board (ESAB) provides a platform for dialogue among governments, regulators, industry, and academia on best practices for addressing emerging electricity security concerns and developing effective policies. It also facilitates exchange among IEA members and association members on common challenges and lessons learned.

[ESAB 2023](#) supported the continuation and expansion of IEA's work on power markets designs, electricity grids, integration of renewables and collection of data on power systems performance. ESAB 2024 will further explore emerging trends and threats in the power sector, examining the role of power markets in electricity security and decarbonization.

Following ESAB, the 11th annual IEA-EPRI Challenges in Electricity Decarbonisation workshop will build on these discussions, offering a deeper and broader exploration of key electricity security topics.

Format

The meeting will be informal and conducted under the Chatham House Rule. Each session will be introduced by invited members of the Advisory Board, followed by a roundtable discussion. Attendance is by invitation only.

For more information, please contact: esab@iea.org.



Agenda

Electricity Security Advisory Board (ESAB) High-Level Meeting Tuesday, 17 September	
8h30-9h00	Welcome coffee and registration
9h00-9h15	Opening Remarks <i>Keisuke Sadamori, Director, Energy Markets and Security, IEA</i>
9h15-9h40	Latest updates on IEA's work on Electricity Security and Renewables Integration <i>Jacques Warichet and Rena Kuwahata, Power System Transformation Analysts, Renewables Integration and Secure Electricity, IEA</i> Followed by Q&A
9h40-10h55	Panel I: Electricity security in the race to triple renewables capacity by 2030 In this panel, experts, regulators, and policymakers will discuss the emerging threats to electricity security associated with the rapid growth of renewable energy and the electrification of end uses, among other key trends. They will share their experiences and strategies for managing these challenges, highlighting common concerns and effective solutions across different countries and regions. Moderator: <i>Kieran McNamara, Policy review of Member countries, Strategic Initiatives Office, IEA.</i> Introductory interventions: <ul style="list-style-type: none">• <i>Tatsuya Shinkawa, Secretary General, Electricity and Gas Market Surveillance Commission, Ministry of Economy, Trade and Industry (METI), Japan</i>• <i>Mechthild Wörzdörfer, Deputy Director General for Energy, European Commission</i>• <i>Sonya Twhig, Secretary-General, European Network of Transmission System Operators for Electricity (ENTSO-E)</i>• <i>Angela Livino, Special Advisor to the Executive Secretary, Latin American Energy Organization (OLADE)</i> Followed by roundtable discussion
10h55-11h10	Coffee break



11h10-12h25	Panel II: The role of power markets in achieving security and decarbonisation goals As power systems undergo transformation and decarbonization, power markets must adapt to ensure electricity security by providing appropriate signals and rewarding availability where it is most critical. This panel will explore how market instruments are evolving to support these goals and examine how they can facilitate the cost-efficient development of a diverse and reliable range of market participants, ultimately contributing to a secure and stable energy supply. Moderator: <i>Dennis Hesseling, Head of Gas, Coal and Power Division, IEA.</i> Introductory interventions: <ul style="list-style-type: none">• <i>Willie L Philips, Commissioner and Chair of US Federal Energy Regulatory Commission (FERC)</i>• <i>Anna Collyer, Chair, Australian Energy Market Commission (AEMC)</i>• <i>Eleanor Warburton, Director for Energy Systems Design and Development, Office of Gas and Electricity Markets (Ofgem), Great Britain</i>• <i>Boniface Kinyanjui, Chief Engineer Generation Planning, Kenya Power and Lighting Company (KPLC)</i> Followed by roundtable discussion
12h25-12h30	Closing <i>Keisuke Sadamori, Director, Energy Markets and Security, IEA</i>
12h30	Networking lunch