

Power Market Design Expert Workshop

Wednesday, 21 May 2025

Room 1 (1st floor)

9 Rue de la Fédération, 75015, Paris

International
Energy Agency

iea



Background

For several decades, liberalised power markets have been instrumental in enabling secure and efficient electricity supplies by promoting competition, improving dispatch efficiency, and guiding investment decisions. However, as power systems evolve, market designs must remain dynamic and adapt to system needs. The pace and magnitude of change creates a pressing need to understand how power markets are performing against their objectives.

Today's power systems are transforming across multiple dimensions. On the supply side, the integration of variable renewable energy is reshaping market dynamics and system needs. On the demand side, accelerating electrification, digitalisation, and decentralisation are introducing new complexity and flexibility potential. These shifts present both challenges and opportunities for market design, particularly in ensuring that price signals, investment incentives, and operational coordination remain aligned with evolving system needs.

In response, many countries are undertaking significant reviews and reforms of their market frameworks. Understanding how markets are performing and what lessons can be exchanged across market designs is valuable in informing future market design.

This workshop will bring together market participants, policymakers, regulators, system operators, and technical experts to examine the performance of liberalised power markets. Participants will explore how current market structures are responding to system needs, where improvements are needed, and what factors should be considered in future market reforms. The insights gathered from this workshop will serve as an essential input to future IEA publications, including a special publication later this year.

Format

The in-person workshop will be a one-day event, informal in nature and held under the Chatham House Rules. Attendance is by invitation only, places are limited.

For further information on participation, please contact: PMDWorkshop@iea.org



Agenda

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8:30 - 9:00	Registration and welcome coffee
9:00 - 9:15	Welcome and housekeeping <ul style="list-style-type: none">Grace Henry, Energy Analyst, Renewable Integration and Secure Electricity (RISE) Unit Opening remarks <ul style="list-style-type: none">Keisuke Sadamori, Director of Energy Market and Security Directorate
9:15 – 9:40	Scene setting <ul style="list-style-type: none">Pablo Hevia-Koch, Head of Renewable Integration and Secure Electricity (RISE) Unit
9:40 – 11:10 (1h30)	Session 1: Market Design and Operations <p>As power systems evolve with higher shares of variable renewable energy, growing electrification, and increasingly complex operational needs, the ability of market structures to deliver secure and efficient outcomes is being tested. This session explores market design through the lens of short-term operations, examining whether current market designs are adequately supporting reliability, flexibility, and system resilience.</p> Guiding questions: <ul style="list-style-type: none"><i>Are current market structures delivering security of supply?</i><i>Are current market designs sufficiently incentivising flexibility services for secure and efficient operations?</i><i>How well are short-term and ancillary service markets aligned with real-time system needs, and what are the barriers to more dynamic system operation?</i><i>Do markets compensate for the full range of services provided by different technologies?</i> Moderator: Dennis Hesseling, Head of Gas, Coal and Power Markets Division
	Format <ul style="list-style-type: none">9:40 - 10:10: Speaker presentations (4x8 min each, with or without slides, company presentation max 1 slide)10:10 - 11:10: Moderated discussion Speakers: <ul style="list-style-type: none">Pietro Grigorio Rabassi, Executive Vice President, Nord PoolErik Ela, Director of System Operation and Electricity Markets, ESIGPhilippe Vassilopoulos, Director of Product Development, Epex SpotLucy Sarkisian, Electricity Business Developer /Policy Maker, TenneT
11:10 – 11:30	Coffee break

<p>11:30 – 13:00 (1h30)</p>	<p>Session 2: Hedging and Forward Markets</p> <p>Liberalised power markets rely on clear and credible price signals to drive investment and manage risk. However, rising price volatility, increased use of long-term contracts, and the growing role of policy instruments are reshaping how market participants hedge risk and make investment decisions. This session will explore how forward markets, PPAs, and policy-driven mechanisms like CfDs are interacting with short-term markets—and whether they are supporting or distorting efficient outcomes.</p> <p>Guiding questions:</p> <ul style="list-style-type: none"> • <i>What is the current state of forward market development across regions, and what practical steps could enhance their role in supporting investment and risk management?</i> • <i>How are long-term bilateral contracts, PPAs and CfDs influencing system operations and short-term market efficiency?</i> • <i>What investment support schemes are proving effective at attracting investments while minimising market distortions?</i> <p>Format</p> <ul style="list-style-type: none"> • 11:30 – 12:10: Speaker presentations (5x8 min each, with or without slides, company presentation max 1 slide) • 12:10 – 13:00: Moderated discussion <p>Moderator: Paolo Frankl, Head of Renewable Energy Division</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Lena Kitzing, Professor in Renewable Energy Economics and Policy, Technical University of Denmark (DTU) • Paula Conboy, Expert Panel Member, Review of Australia’s National Electricity Wholesale Market • Cillian O'Donoghue, Policy Director, Eurelectric • Alan Hayes, Senior Commercial Advisor, Pexapark • Karin Dahlman, Global Energy Director, Alcoa
<p>13:00 – 14:00</p>	<p>Lunch break</p>
<p>14:00 – 15:30 (1h30)</p>	<p>Session 3: Capacity investment and resource adequacy</p> <p>As electricity demand rises and the generation mix shifts toward variable, low-marginal-cost resources, ensuring long-term resource adequacy is becoming more complex and urgent. Traditional investment signals—such as scarcity pricing—may not be sufficient on their own to deliver the scale and type of capacity needed, especially in systems with aging thermal fleets, policy-driven retirements, and increasing reliance on flexible and firm capacity. This session will explore the role of market design in supporting capacity investments and resource adequacy.</p> <p>Guiding questions:</p> <ul style="list-style-type: none"> • <i>To what extent are long-term investments driven by market signals and what does this mean for market designs (i.e., scarcity pricing, capacity markets, locational signals, etc.)?</i>



	<ul style="list-style-type: none"> • <i>How effectively are current market designs addressing the risks posed by aging thermal fleets and uncertain retirement trajectories?</i> • <i>What role should governments play in ensuring long-term resource adequacy, and how should this operate alongside market mechanisms?</i> <p>Format</p> <ul style="list-style-type: none"> • 14:00 – 14:30: Speaker presentations (4x8 min each, with or without slides, company presentation max 1 slide) • 14:30 – 15:30: Moderated discussion <p>Moderator: Brent Wanner, Head of Power Sector Unit (PSU)</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Lars Stephan, Director Marketing, Policy and Public Affairs (EMEA) at Fluence • Juan Ríos, Senior VP of Global Energy Management at Iberdrola • Hideya Sakyu, Director of the Office for Electricity Transmission and Distribution Policy at METI • Andrew W. Thompson, Energy Associate at Brattle Group
15:30-15:50	Coffee break
15:50 – 17:10 (1h20)	<p>Session 4: Closing Roundtable Discussion</p> <p>This session will allow for open discussion for participants to share their perspectives on key topic from the workshop, cross-cutting themes and priority areas of action.</p> <p>Moderator: Pablo Hevia-Koch, Head of RISE Unit</p> <p>Guiding questions:</p> <ul style="list-style-type: none"> • <i>What have been the most important things discussed today?</i> • <i>What are the biggest blind spots from the discussion today?</i> • <i>What changes would like to see in the short-term?</i>
17:10-17:30	<p>Closing Remarks and Key Takeaways</p> <ul style="list-style-type: none"> • Pablo Hevia-Koch, Head of Renewable Integration and Secure Electricity (RISE) Unit
17:30-19:00	Networking reception