



电力规划设计总院
China Electric Power Planning & Engineering Institute

Reforming power markets in China to accelerate the clean energy transition

International perspectives

Online Workshop

Wednesday 13 September 2023

15:30 – 17:30 Beijing time / 9:30 – 11:30 CEST

Zoom platform registration link:

<https://meetoe.com>

d1.zoom.us/webinar/register/WN_18Bg4R1zTJGQ5ArzWWK6DA#/registration

Working language: Chinese and English
with simultaneous interpretation

International
Energy Agency





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Context

In April 2023, the IEA launched [Building a Unified National Power Market System in China: Pathways for spot power markets](#), a report that examines the role of power markets in China and the pathways to develop a co-ordinated system of markets at the national level. A particular attention was given to spot markets, in light of the central role they play in other market-based systems around the globe and their potential to unlock the flexibility needed in power systems with high share of variable renewable energy (VRE).

In China, spot markets are taking trials to include new market entities such as VRE, storage and virtual power plants (VPPs). New business models need to be found for them as they enter market arrangements originally designed for conventional power plants. Lower or even negative prices come increasingly frequent in some pilot markets like [Shandong](#), highlighting the need for adapting market mechanisms to enable further VRE integration.

Power markets around the world are evolving to fit countries' decarbonisation goals and adopt a renewables' friendly structure. International knowledge sharing and experiences can inspire China in its power markets reform process, which showed further [signs of acceleration](#) this summer. Europe in particular is a relevant case, as in March 2023, in the wake of the energy crisis, the European Commission proposed a [revision of the EU electricity market design](#) to "boost renewables, better protect consumers, and enhance industrial competitiveness". This coincides with the principles lined out in China's [Document No.118 of 2022](#) on building a unified national market system, the high-level policy document at the root of the IEA report.

Event objectives and format

The main objective of this webinar will be to discuss common challenges between China and international stakeholders on reforming power markets for high renewable penetration and dealing with new market participants, while facilitating knowledge sharing on how to solve them. The webinar will trigger a conversation around the following core topics:

- What are the key reforms needed in China to advance power markets, in a context of increasing penetration of wind and solar power?
- Can the European Union's proposal to reform its internal electricity market be a source of inspiration for China?
- How to best integrate new entities into power markets to harness new flexibility resources?
- Which market instruments and regulatory measures are best suited to address common concerns related to price volatility and changing patterns in a renewable-based system?

The workshop is hosted in online format only, on the Zoom platform ([registration link](#)).

The workshop is intended to be an open conversation between experts and stakeholders.

Participants can speak Chinese or English, and instantaneous interpretation is provided online.

Contacts

Ms Camille PAILLARD, Energy Analyst, Renewable Integration and Secure Electricity Unit, IEA (camille.paillard@iea.org)

Mr WANG Shunchao, Assistant Director of International Business Department, EPPEI (scwang@eppei.com)

Mr GAO Shuo, China Power team Manager, RMI (sgao@rmi.org)



Draft Agenda (Chinese version below)

Time CEST (BJT)	
	Host: <i>Camille PAILLARD, Energy Analyst, IEA</i>
09:30 – 09:40 (15:30 – 15:40)	Opening remarks <i>Dr Pablo HEVIA KOCH, Head of Renewable Integration and Secure Electricity, IEA</i>
09:40 – 10:05 (15:40 – 15:05)	Session 1: “Reforming power markets to deliver energy security, decarbonisation and electrification: the example of the EU electricity market reform proposal” (20 min) <i>Dr Jean-Michel GLACHANT, Professor, Florence School of Regulation</i> Q&A (5 min)
10:05 – 10:25 (15:05 – 15:25)	Session 2: “Bridging the gap between the increasing penetration of VRE and the current power market” (15 min) <i>Dr LI Rong, Division Director, Energy Policy and Market Research Department, EPPEI</i> Q&A (5 min)
10:25– 10:45 (15:25 – 16:45)	Session 3: “Accommodating the participation of new flexibility resources to power markets: the case of Virtual Power Plants (VPPs)” (20 min) <ul style="list-style-type: none">• Situation of VPPs in China: grid dispatch and business models (10 min) <i>Dr GONG Feixiang, Senior Engineer, China Electric Power Research Institute</i>• VPPs’ participation to power markets: international examples (10 min) <i>Dr Gabrielle KUIPER, Guest Contributor, Institute for Energy Economics and Financial Analysis (IEEFA)</i>
10:45 – 11:25 (16:45 – 17:25)	Panel Discussion : “Adapting market instruments to renewable electricity and new market entities” (40 min) <i>Moderator: Ms LIU Yujing, Principal of RMI’s China Program</i> <i>Panellists:</i> <ul style="list-style-type: none">• <i>Ms JIANG Liping, Third-level Advisor, State Grid Energy Research Institute</i>• <i>Dr Jean-Michel GLACHANT, Professor, Florence School of Regulation</i>• <i>Dr LI Rong, Division Director, Energy Policy and Market Research Department, EPPEI</i>• <i>Dr GONG Feixiang, Senior Engineer, China Electric Power Research Institute</i>• <i>Dr Gabrielle KUIPER, Guest Contributor, IEEFA</i>
11:25– 11:30 (17:25 – 17:30)	Wrap up and closing remarks



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As mentioned in the notice, we may also contact you about future events that might be of interest. If you do not wish to be contacted about future events please send an email to camille.paillard@iea.org.



电力规划设计总院
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改革中国电力市场，加速清洁能源转型

国际视角

线上研讨会

日期：2023年9月13日（星期三）

时间：北京时间 15:30 - 17:30 / 欧洲中部时间 9:30 – 11:30

Zoom 平台注册链接：

https://meetoecd1.zoom.us/webinar/register/WN_18Bg4R1zTJGQ5ArzW/WK6DA#/registration

语言：中文和英语，提供同声传译



背景介绍

2023 年 4 月，国际能源署（IEA）发布《[中国建立全国统一电力市场体系：电力现货市场路径](#)》报告，主要研究了电力市场在中国的角色，以及建立全国统一市场的路径。本报告聚焦于电力现货市场，关注其在全球其他电力市场体系中的核心地位，以及其在高比例波动性可再生能源（VRE）电力系统中释放灵活性的潜力。

目前，中国现货市场正在尝试纳入新的市场参与者，如 VRE、储能与虚拟电厂（VPPs）等。由于原有的电力市场为面向传统电厂所设计，因此新参与者进入市场之际，必须为其探索新的商业模式。部分试点市场，例如[山东](#)，已开始频繁出现低价甚至负电价现象，这也表明了调整市场机制、进一步融合 VRE 的紧迫性。

与此同时，全球电力市场也在加速调整，旨在适应各国减碳目标，转型为可再生能源友好模式。今年夏天，相关国际实践[不断加速](#)，为中国的电力市场改革提供了启示。欧盟为相应 2023 年 3 月的能源危机，提出[修订电力市场结构](#)，旨在“增加可再生能源使用、改善消费者保护、提高工业竞争力”，与中国[2022 年第 118 号文件](#)所提出的“建设全国统一电力市场体系”原则高度一致，这也是 IEA 该报告的出发点。

活动目标和形式

本次线上研讨会将探讨：中国与国际各方在推进高比例波动性可再生能源（VRE）渗透的电力市场改革，以及应对新市场参与者时，所面临的挑战及解决方案，并分享相关国际经验。研讨核心议题如下：

- 鉴于风能和太阳能的持续增长，中国应采取哪些关键步骤来推动电力市场进一步发展？
- 欧盟对其内部电力市场的改革方案是否能为中国提供有益参考？
- 如何更有效地将新的参与者融入电力市场，从而充分利用新的灵活性资源？
- 在基于可再生能源的电力系统中，面对价格不稳定和运行模式变化等挑战，中国应当采用哪些市场策略和监管手段？

本次研讨会将于线上 Zoom 平台举办（[注册链接](#)）。

本次研讨会旨在为专家和利益相关者提供一个开放的对话平台。

参与者可以使用中文或英文，线上将提供同声传译。

联系方式

Camille PAILLARD 女士，IEA 可再生能源融合与安全电力部能源分析师 (camille.paillard@iea.org)

王顺超先生，电力规划设计总院（EPPEI）国际部国际合作处副处长 (scwang@eppei.com)

高硕先生，落基山研究所（RMI）电力部门总监 (sgao@rmi.org)



会议议程

	主持人: <i>Camille PAILLARD, IEA 能源分析师</i>
15:30 – 15:40	开幕致辞 <i>Pablo HEVIA KOCH 博士, IEA 可再生能源融合与安全电力部主管</i>
15:40 – 15:05	第一部分: “改革电力市场以实现能源安全、去碳化和电气化: 以欧盟电力市场改革为例” (20 分钟) <i>Jean-Michel GLACHANT 博士, 佛罗伦萨政策法规学院 教授</i> 问答环节 (5 分钟)
15:05 – 15:25	第二部分: “缩小日益增长的波动性可再生能源 (VRE) 与当前电力市场之间的差距” (15 分钟) <i>李嵘博士, 电力规划设计总院 能源政策与市场研究部主任</i> 问答环节 (5 分钟)
15:25 – 16:45	第三部分: “电力市场融合新的灵活性资源: 以虚拟电厂 (VPP) 为例” (20 分钟) <ul style="list-style-type: none">• 中国 VPP 的现状: 电网调度和商业模式 (10 分钟) <i>宫飞翔博士, 中国电力科学研究院 高级工程师</i>• VPP 参与电力市场: 国际示例 (10 分钟) <i>Gabrielle KUIPER 博士, 能源经济与金融分析研究所 (IEEFA) 特邀研究院</i>
16:45 – 17:25	圆桌讨论: “调整市场工具, 适应可再生能源电力与新兴市场主体” (40 分钟) 主持人: <i>刘雨菁, RMI 中国项目董事</i> 发言嘉宾: <ul style="list-style-type: none">• <i>蒋莉萍, 国网三级顾问</i>• <i>Jean-Michel GLACHANT 博士, 佛罗伦萨管理学院 教授</i>• <i>李嵘博士, 电力规划设计总院 能源政策与市场研究部主任</i>• <i>宫飞翔博士, 中国电力科学研究院 高级工程师</i>• <i>Gabrielle KUIPER 博士, 能源经济与金融分析研究所 (IEEFA) 特邀研究员</i>
17:25 – 17:30	总结和结语



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请参考 IEA 网站上关于 [IEA 访客和 IEA 活动参与者的数据保护](#) 通知，以获取有关 IEA 如何处理您在 2023 年 9 月 13 日举行的“改革中国电力市场，加速清洁能源转型”活动（以下简称“活动”）中的个人数据以及您相关权利的更多信息。

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