

The design of the European Electricity Market

Current proposals and ways ahead

The original full [study](#)¹ analyses the ongoing reform of the European electricity market. Specific design instruments proposed by the European Commission and supported by the European Parliament amendments are assessed in detail. A novel approach to modelling financial flows in electricity markets is also put forward as both a tool for the quantification of existing policy options and as a proof-of-concept for the development of future tools.

Background

In March 2023 the European Commission proposed a reform of the European electricity market. The main motive at that time was to mitigate the spill-over of the gas crisis, that led wholesale natural gas prices to increase ten-fold, into electricity prices for households and industry. As



demand reduction and additional supplies quickly alleviated the gas crisis and as it became clear that simple fixes to electricity markets have massive side-effects, the discussion moved to longer-term reforms. Adjustments to the framework for longer-term contracts between producers and consumers were proposed with a view to allow producers to better hedge and hence more easily invest; and consumers to better protect themselves from short-term price spikes.

Key findings

The energy crisis tested the current market design on three key elements: operation, fairness, and investment. On operation, the electricity market helped to navigate a historic supply crisis. From a fairness perspective, the shock led to substantial shifts in wealth, hurting unprotected consumers. The crisis showed there had been too little investments in generation capacity, interconnection, maintenance, and too high reliance on fuel supplies.

Check out the [original full study](#) by scanning this QR code



In response, the European Commission proposal for reforming electricity market design fine-tunes existing market instruments. This includes proposals concerning Contracts for Difference, hedging obligations, an intervention framework for price crises, a peak shaving product, and energy sharing.

A fundamental conclusion of the study is that Europe lacks the necessary assessment framework for objectively analysing changes to electricity market design. Little attention has been devoted to the development of tools that model the financial flows that sit behind electricity trade. Our report proposes a highly stylised-tool, the Dispatch and Contracts (DISC) model.

We offer three specific recommendations. First, customer protection should not interfere with short-term price incentives. Second, long-term contracts to encourage low-carbon generation should be designed in a way to preserve short-term, operational efficiencies. Third, existing mechanisms for balancing short-term power markets already work well and excessive incentives for flexibility should be avoided.

Moving beyond the current discussion, a near-term priority should be to increase transmission capacities. A second short-term threat to the efficient operation of grids are political discussions to freeze prices for certain demand groups. Any such move risks an inefficient subsidy race inside Europe. Managing the correct balance of an electricity system caught between a market offering some investment signals and a constant stream of evolving government intervention will be the key challenge moving forward.

¹ Zachmann, G., Hirth, L., Heussaff, C., Schlecht, I., Mühlenpfordt, J., Eicke, A. 2023, *The design of the European electricity market*, Publication for the committee on Industry, Research and Energy, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2023/740094/IPOL_STU\(2023\)740094_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2023/740094/IPOL_STU(2023)740094_EN.pdf)

Disclaimer and copyright. The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament. Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy. © European Union, 2023.

© Cover image by Jeanne Menjoulet, "old nuclear power plant & new wind turbine", edited/cut, <https://flickr.com/photos/jmenj/34718926936/>, licensed CC-BY-2.0

IP/A/ITRE/2023-13; Manuscript completed: September 2023; Date of publication: November 2023

Administrator responsible: Matteo CIUCCI; Editorial assistant: Marleen LEMMENS

Contact: Poldep-Economy-Science@ep.europa.eu

This document is available on the internet at: www.europarl.europa.eu/supporting-analyses

Print ISBN 978-92-848-1388-9 | doi:10.2861/47830 | QA-02-23-248-EN-C

PDF ISBN 978-92-848-1389-6 | doi:10.2861/28211 | QA-02-23-248-EN-N