



# TradeRES

New Markets Design & Models for  
100% Renewable Power Systems

# NEWSLETTER



## TradeRES 7<sup>th</sup> semester achievements

The conclusion of the first half of the fourth year of our project marks a significant milestone. From February 2023 to July 2023, we achieved milestones, published several works, and actively participated in conferences.

## EERA-ESI TradeRES workshop

We were thrilled to have hosted a special workshop in Brussels, just before the EERA-ESI 2023 Conference, on the 28th of June 2023!

The program consisted of presentations and case studies that delved into various facets of renewable energy and electricity markets.



The topics ranged from addressing challenges within electricity markets for renewables to examining

European case studies and engaging in discussions. Valentin Bertsch from the University of Bochum provided insights on electricity markets to support high levels of variable renewable generation.

## Dissemination

### Journals

- Hugo Algarvio, “The Economic Sustainability of Variable Renewable Energy Considering the Negotiation of Different Support Schemes”, Sustainability 15, March 2023 | [DOI](#);
- Bruno Veiga, Gabriel Santos, Tiago Pinto, Ricardo Faia, Carlos Ramos, Zita Vale, “Simulation tools for electricity markets considering power flow analysis”, Energy, April 2023 | [DOI](#);
- Dawei Qiu, Yi Wang, Junkai Wang, Chuanwen Jiang, Goran Strbac, “Personalized retail pricing design for smart metering consumers in electricity market”, Applied Energy, 348, July 2023 | [DOI](#).

### Conferences

- Fernando Lezama, Ricardo Faia, Pedro Faria, Zita Vale, “Analysing the Impact of Local Electricity Transactions with EV Penetration on the Electrical Grid”, 19th International Conference on the European Energy Market (EEM), 1-6, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#);



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- Gabriel Santos, Ricardo Faia, Fernando Lezama, Zita Vale, "Multilevel Electricity Trading Simulation considering Energy Communities Participation", 19th International Conference on the European Energy Market (EEM), 1-5, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#);
- Til Kristian Vrana, Harald G. Svendsen, Magnus Korpås, António Couto, Ana Estanqueiro, Damian Flynn, Hannele Holttinen, Philipp Härtel, Matti Koivisto, Eric Lantz, "Improving wind power market value with various aspects of diversification", 19th International Conference on the European Energy Market (EEM), 1-6, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#);
- Dawei Qiu, Nikolaos Chrysanthopoulos, Goran Strbac, "Tariff Design for Local Energy Communities Through Strategic Retail Pricing", 19th International Conference on the European Energy Market (EEM), 1-6, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#);
- Junkai Wang, Dawei Qiu, Goran Strbac, Yujian Ye, "Market-Based Generation Planning with Carbon Target", 19th International Conference on the European Energy Market (EEM), 1-6, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#);
- Niina Helistö; Silke Johanneiter; Juha Kiviluoma, "The Impact of Sector Coupling and Demand-side Flexibility on Electricity Prices in a Close to 100% Renewable Power System", 19th International Conference on the European Energy Market (EEM), 1-6, Lappeenranta, Finland, June 6-8, 2023 | [DOI](#).

More details at: <https://traderes.eu/papers>

## Deliverables

- D3.5 (2nd revision) Market design for a reliable ~100% renewable electricity system  
D2.3 How to use TradeRES optimization models database | [Link](#)

More details at: <https://traderes.eu/documents/>

## Events

We participated in several events, such as:

- Workshop "Agent-based Modeling for Energy Economics and Energy Policy", organized by DLR, February 1st, 2023;
- International Energy Economics Conference (IEWT), February 14-17, 2023;
- YEAR network Sustainable Energy And Energy Transition Webinar, February 24, 2023;
- Winter school – Planning under Uncertainty in Energy Markets, March 26-31, 2023;
- GECAD Energy Day, hybrid, May 24, 2023;
- KAKENHI Workshop, Challenges and Solutions for Power Systems with Large Shares of Renewable, May 10, 2023;
- International Conference on European Energy Markets (EEM), June 6-8, 2023;



- Workshop hosted by TradeRES and EERA-SI, hybrid, June 28, 2023;
- International Conference & Exhibition on Electricity Distribution (CIRED), June 12-15, 2023
- Silke Johanneiter, Niina Helistö, Juha



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Kiviluoma, Valentin Bertsch, "Integrating prosumers into a fully decarbonized European wholesale electricity market", 18th IAAE European conference The Global Energy Transition Toward Decarbonization, Milan, Italy, July 24-27, 2023 (presentation);

- Ingrid Sanchez Jimenez, Laurens de Vries, "Capacity mechanisms in a highly renewable electricity market with flexible resources", 18th IAAE European conference The Global Energy Transition Toward Decarbonization, Milan, Italy, July 24-27, 2023 (presentation).

More details at: <https://traderes.eu/events>

## Future event

### TradeRES Stakeholder Workshop

Join us at our workshop on Market Designs in Germany and the EU, in which we would like to get your feedback on our latest research from the EU-Horizon2020 project TradeRES.

1. The first part - of our workshop is policy-oriented and covers the conceptual discussion of market design options as well



The TradeRES project will develop and test innovative electricity market designs that can meet society's needs of a (near) 100% renewable power system. The market design will be tested in a sophisticated simulation environment in which real-world characteristics such as actors' limited foresight into the future and risk aversion are included.

as a presentation of our latest modelling results.

2. The second part - of the workshop addresses energy system modellers and offers a hands-on experience with the tools employed and enhanced in the project. We introduce you to Spine Toolbox, AMIRIS and Backbone and ask for your professional assessment and advice on these tools.

Both parts are independent of each other – feel free to join either one or both parts of the workshop, depending on your interests and expertise.

### Details:

October 12, 2023

Online, no admission fee.

1. [Click here to registration in the first part](#)  
(09:30h – 12:30h CEST)
2. [Click here to registration in the second part](#)  
(14:00h – 17:00h CEST)

More information: <https://traderes.eu/events/>



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### Start date

1 February 2020

### End date

31 January 2024

**Overall budget: € 3 988 713,75**



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