

AURES II – Auctions for Renewable Energy Support II

Final conference

Virtual meeting, 28 April 2022

Next steps in RES-E auction design

Vasilios Anatolitis – Fraunhofer ISI



Agenda

Time in CET	Topic	Speaker
15:15-16:15	Next steps in RES-E auction design	Vasilios Anatolitis (Fraunhofer ISI)
15:15-15:20	Cross-border auctions in the Energy Community	Naida Taso (Energy Community Secretariat)
15:20-15:25	Q&A for Naida Taso	
15:25-15:35	Cross-border auctions in the EU	Felix von Blücher (Guidehouse)
15:35-15:45	Can multi-technology auctions work?	Jenny Winkler (Fraunhofer ISI)
15:45-15:50	Multi-technology auctions and the state aid guidelines	Alice Gallo (European Commission, DG COMP)
15:50-16:15	Q&A and panel discussion	Moderator: Vasilios Anatolitis (Fraunhofer ISI), Panelists: Felix von Blücher (Guidehouse), Jenny Winkler (Fraunhofer ISI), Alice Gallo (European Commission, DG COMP)

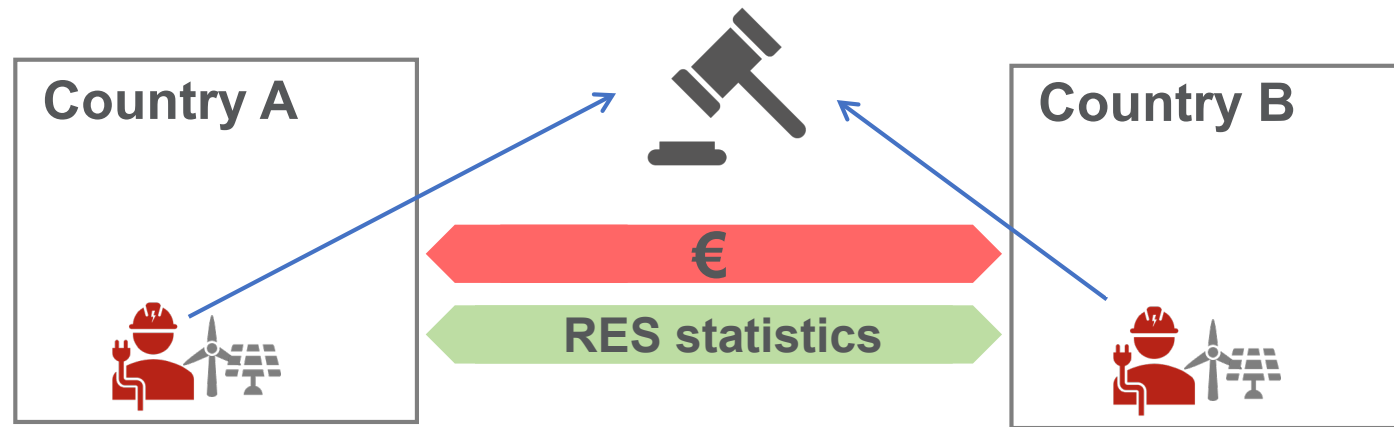
Cross-border auctions in the Energy Community

Naida Taso – Energy Community Secretariat

Cross border auctions

Felix von Blücher – Guidehouse

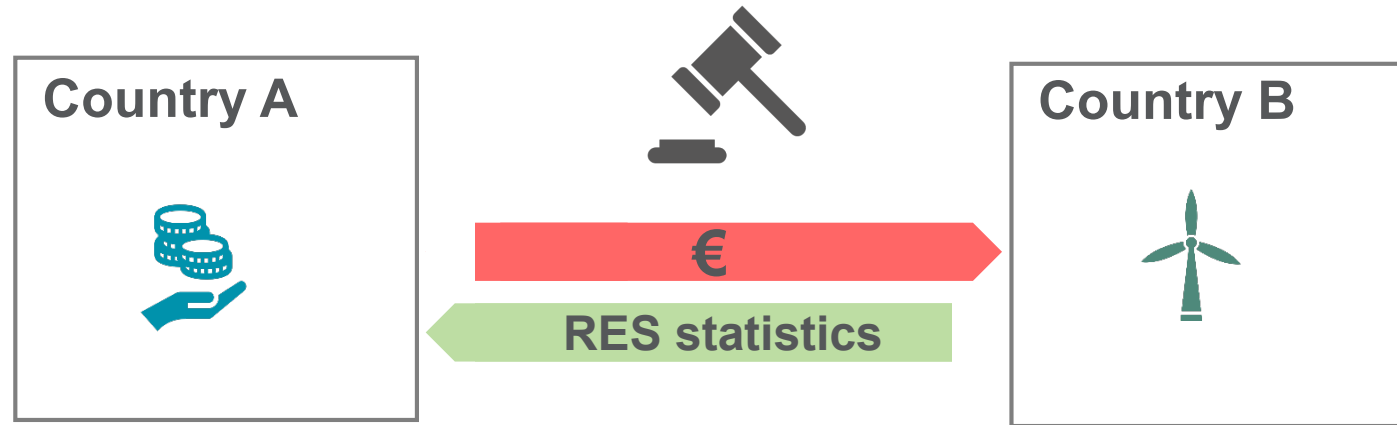
What are cross-border auctions?



Cross-border auctions are characterized by:

- being open for participation of projects from more than one country
- creating competition between project developers from different countries
- resulting in cross-border flow of support payments and RES statistics

Rationale of cross-border auctions



Benefits for contributing party

Reduction of support costs by:

- ✓ tapping into better natural potential
- ✓ reaching higher market values
- ✓ accessing better financing conditions
- ✓ increasing competition in auction



Benefits for hosting party



- ✓ Structural transition of energy system and mobilization of FDI
- ✓ Job creation
- ✓ Clean air and public health
- ✓ Political cooperation

Are cross-border auctions an **emerging** topic?

Limited use of cross-border potential due to:

1. Lack of political willingness / acceptance
2. Uncertainty about the outcome
3. Complexity of cooperation options
4. Transaction costs

AURES II studies:

- [Design options for cross-border auctions](#)
- [Auction theoretical aspects](#)
- [Practical guidance on implementing cross-border auctions](#)

Reasons for more cross-border cooperation in the future:

1. Recently, more MS seek cooperation
2. Increasing RES ambitions
3. RED II: Voluntary opening of national schemes (\geq 5% in 2023-26); REV proposal: project by 2025
4. Two new EU instruments:

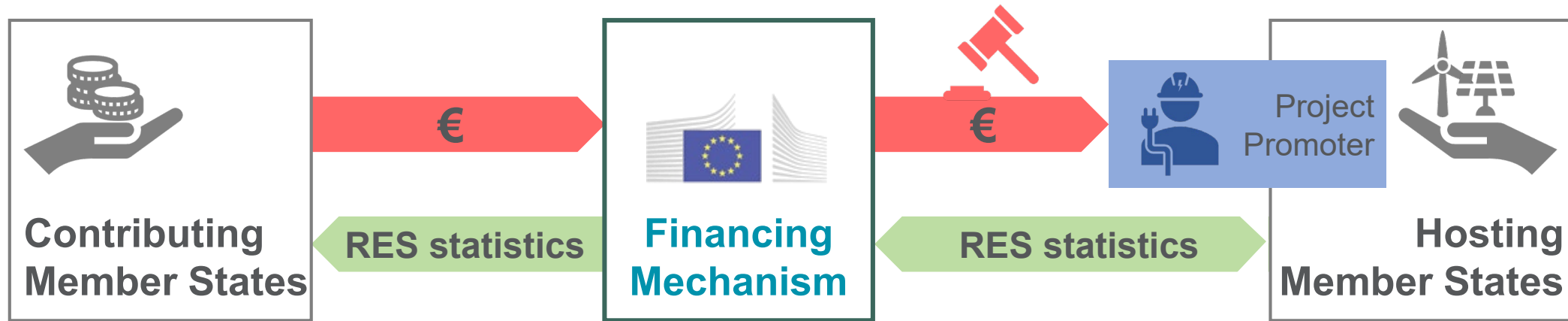


New CEF funding line: grants (1.2€ billion 2020 - 2027) for “cross-border RES projects”



“Financing Mechanism”: EU wide auctions

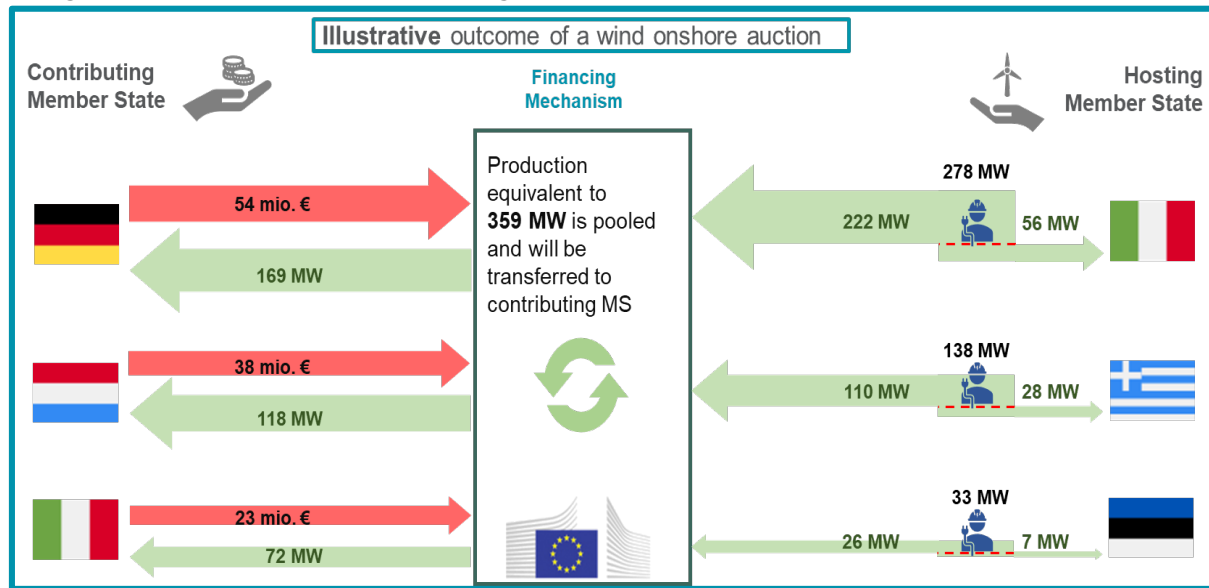
Case study: Auction of the EU Financing Mechanism – basic functioning



- **Participation is voluntary** for contributing and hosting MS
- **Contributing Member States** pay entire support: define volumes and max. financial contributions
- **Host countries:** define technologies, overall volumes and project sizes
- FinMec implements auction which determines **support levels**, allocates support to projects and redistributes RES statistics
- Contributors receive **statistical RES** target contribution. Some RES statistics remain with the hosting MS.

Case study: Auction of the EU Financing Mechanism – Pros & Cons

Hypothetical case study



- Pre-determined support scheme and auction design **reduces negotiation requirements**
- **Less administrative burden** for nat. authorities



- **Risk of not being awarded**
- Limited control over **project selection**
- **System integration costs** in host country



- FinMec is an **effective tool** to aggregate cooperation
- Process of setting-up a tender based on MS' input: **preferences may evolve** over time (volumes, technology). Not all preferences may be reflected.
- **Relevant use-cases** (volumes) need to be identified.

Further case studies:

→ [Considerations for setting up cross-border auctions in Hungary](#)



→ [International auctions in a joint offshore wind hub](#)



What to expect from cross-border cooperation/auctions in the future?

1. Increasing attention via regulation
2. MS will have higher willingness to engage in cross-border cooperation and be more pragmatic about it
3. From pilot-phase to more large-scale cooperation
4. Less focus on distribution of support costs, more focus on system integration/infrastructure costs
5. More cross-border auctions at EU-level



[Podcast Episode](#)

AURES



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Can multi-technology auctions work?

Jenny Winkler (and Vasilios Anatolitis) – Fraunhofer ISI



What are multi-technology auctions?



- In multi-technology auctions, more than one technology can be awarded in the same auction round:
 - Auctions for all decarbonization technologies: e.g. SDE++
 - Auctions for (almost) all renewable technologies: e.g. Hungarian renewable energy auctions
 - Technology-basket auctions: e.g. combined auctions for onshore wind and PV in Greece
 - Auctions for technology combinations: e.g. auctions for storage and generation in Germany
- Multi-technology auctions are never technology-neutral!

Impacts of multi-technology auctions

Criterion	Impact of multi-technology auctions
Static efficiency	High as least cost technologies are awarded
Dynamic efficiency	Potentially low as only most mature technologies are awarded
Support costs	Depending on technologies necessary for reaching auction volume
Planning certainty and supply chains	Potentially low due to changes in awards per technology over time
Flexibility	More options for reaching the auction volume can increase competition and flexibility
Auction design	More complex in order to allow for specifics of all involved technologies

Source: <http://aures2project.eu/2022/04/13/the-state-of-multitechnology-auctions-in-europe/>

Technology bias in multi-technology auctions

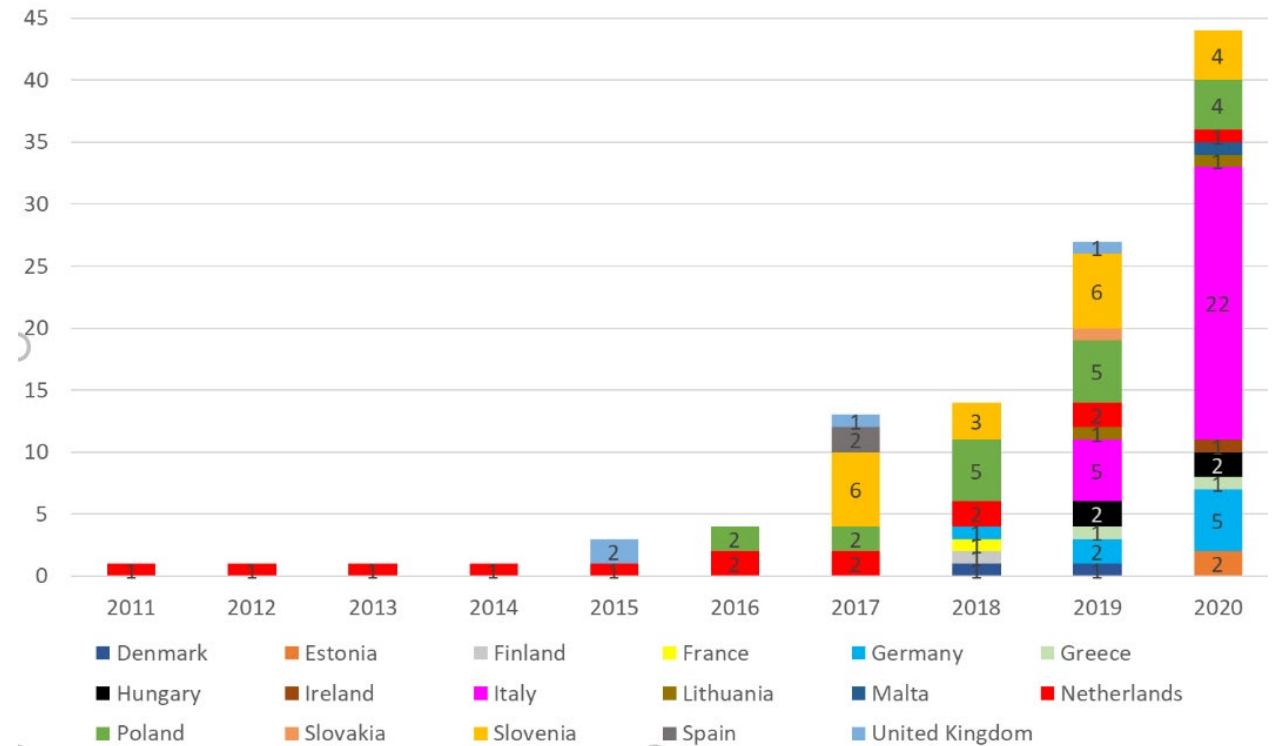
- Auction design parameters influence relative competitiveness of technologies, e.g. longer realization time favors technologies with fast learning rates
- Model-based analysis shows:
 - type of support (type of premium) crucial for technology bias
 - impact of other design elements depends on type of support
 - marginal impact for timing of auctions
 - small impact for realization period and balancing cost responsibility
 - moderate to high impact for support period, integration of grid costs and environmental harm compensation

Table 50: The relevance of the analysed design elements for technology bias in all three remuneration schemes, based on the reference values of the baseline scenario.

Relevance of design elements for technology bias in auctions	1-sided sliding premium	2-sided sliding premium (CfD)	Fixed premium
Support period	moderate	moderate	high
Granted realisation period	small	small	small
Timing of the auction	marginal	marginal	marginal
Balancing cost payment responsibility ¹⁵	small	small	marginal
Grid integration cost compensation	high	high	moderate
Environmental harm compensation	high	high	high

Multi-technology auctions in the EU

- In principle required by Renewable Energy Directive and State Aid Guidelines but exceptions apply
- Numbers increasing
- Results:
 - Stop- and-go can be an issue
 - Dominant technologies can change over time
 - No clear effect on prices compared to single technology auctions
- As always: auction design needs to fit framework conditions and objectives

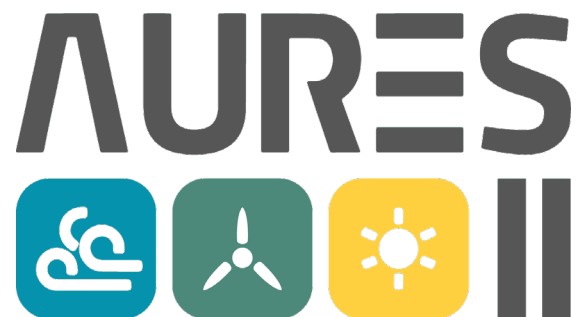


Source: <http://aures2project.eu/2022/04/13/the-state-of-multitechnology-auctions-in-europe/>

Multi-technology auctions can work if...



- ...MS define specific objectives and adapt design elements accordingly.
- ...targeted technologies are comparable or auction design elements account for differences (e.g. realisation periods, level of financial prequalification).
- ...multi-technology auctions are not competing with technology-specific auctions taking place at the same time.



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Multi-technology auctions and the State aid guidelines

AURES II Final conference

Alice Gallo, DG COMPETITION

28th April 2022

The State aid framework

- The previous ***Guidelines on State aid for environmental protection and energy (EEAG)*** generally contributed to supporting climate targets. However, certain aspects needed to be revised to be fully up to the challenge of the Green Deal and the COVID-19 Recovery.
- The revision enlarged the scope of the guidelines to cover new areas and technologies, making the compatibility rules more flexible.
- The wider scope is accompanied by safeguards to ensure that the aid:
 - is effectively directed where it is necessary to improve climate and environmental protection;
 - is limited to what is needed to achieve the environmental goals;
 - does not distort competition or the integrity of the Single Market.
- The new ***Guidelines on State aid for Climate, Environmental Protection and Energy (CEEAG)*** reflect the increasingly important role of more ambitious climate policies in the green transition and of competition policy in supporting the Green Deal.

Multi-technology auctions in the Guidelines

EEAG

CEEAG

Aid award mechanism

Technology-neutral competitive bidding is the default mechanism for awarding aid for **support to renewable energy**

Technology-neutral competitive bidding is the default mechanism for awarding aid for **decarbonisation**

Tender features

Open to all generators producing electricity from renewable energy sources

Open across comparable areas and technologies that can contribute to the achievement of the Green Deal

Exemptions

To cater for the different stage of technological development of renewable energy technologies under certain circumstances

- Where there is a deviation of at least 10% between the expected bid levels
- Where Union law establishes specific technology targets (e.g. RED II)
- Open list of justifications (e.g. grid issues, long term potential, cost efficiency, etc.)



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Advantages and challenges

ADVANTAGES

Truly competitive technologically neutral bidding processes ensure proportionality of State aid and contribute to:

- Reducing **overcompensation**
- Minimizing **market distortions**
- Achieving a **cost-effective energy transition**

CHALLENGES

When bidders are heterogeneous there is a risk of infra-marginal rents that could hinder the cost-effectiveness of State aid.

To prevent this, Member States are granted flexibility to design competitive bidding procedures, especially with respect to:

- **Selection criteria and scoring rules**
 - Introduction of **bid caps**

Thank you



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Q&A and panel discussion Next steps in RES-E auction design

Moderator: Vasilios Anatolitis (Fraunhofer ISI)

Panelists:

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