Cross-border auctions

An emerging option to cost-effectively deploy renewables

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NAVIGANT

AURES II: Assisting Member States and the European Commission with the set-up of cross-border RES auctions

Report: „Design options for cross-border renewables auctions“ (http://aures2project.eu/reports/)

AURES II Regional Workshop, Budapest, 25th June 2019

Aim of today‘s presentation

1. **What are cross-border auctions, why do they make sense and will gain importance**

2. **What are the basic models and design principles of cross-border auctions + key insights from German-Danish pilot auctions**

3. **How a future framework at EU-level will facilitate cross-border auctions**

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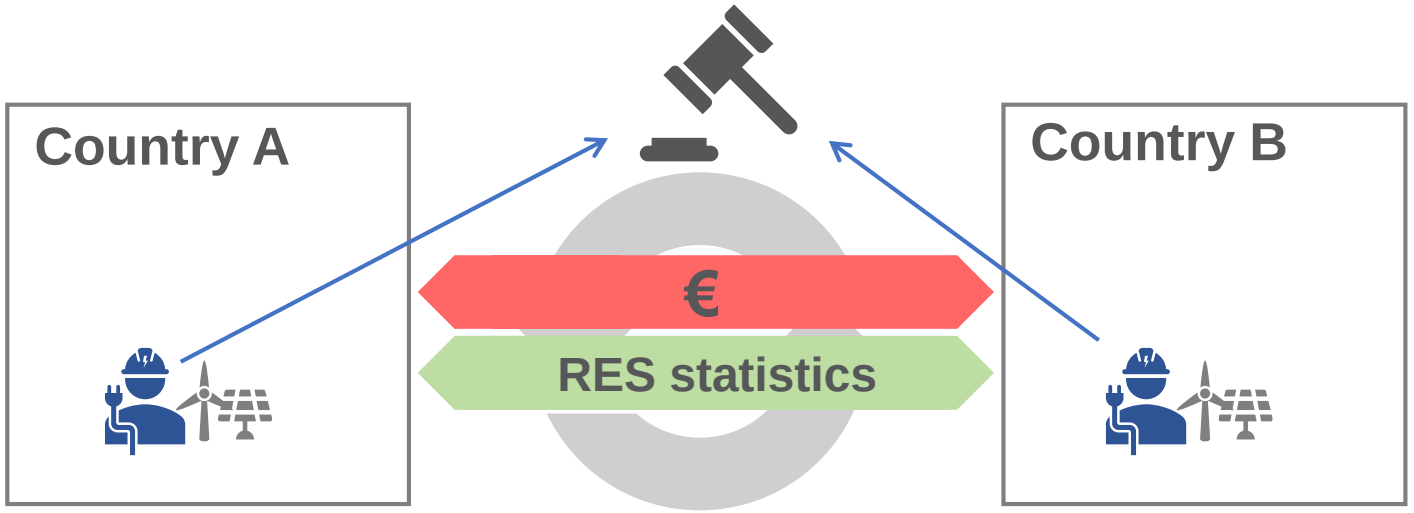
What are cross-border auctions?



Cross-border auctions are characterized by:

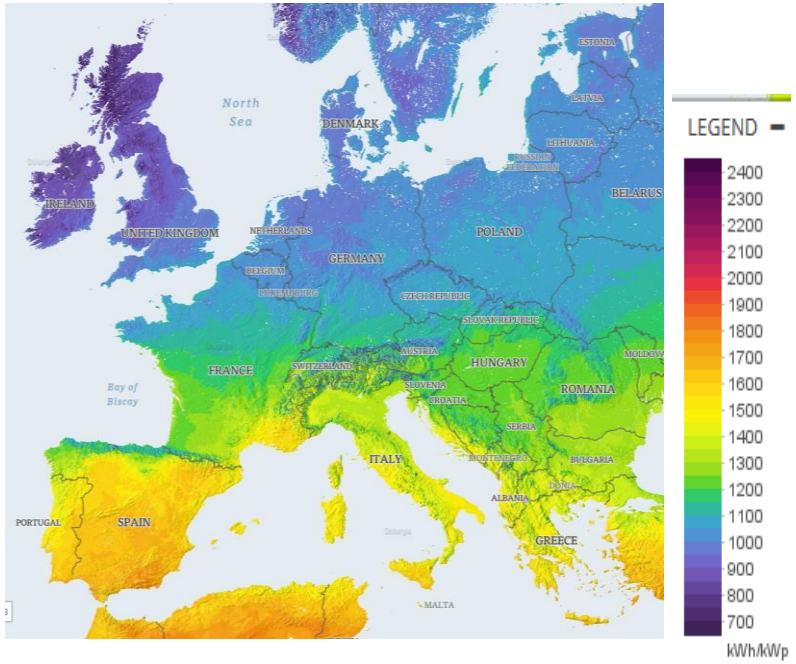
- being open for participation of projects from more than one country,
- creating competition between project developers from different countries,
- typically resulting in cross-border flow of support payments and RES statistics

Rationale of cross-border auctions

1. Potential to significantly reduce support payments by deploying RES in areas with:
    - Better natural resource potential
    - Higher market values
    - Lower cost of capital

2. **Increase competition:** countries may use x-border auctions to increase competition in their domestic scheme

3. **Transfer of knowledge** and testing different design



Why are international auctions an emerging topic?

- **State aid:** MS have opening obligation (DE, LU, ES, EE, RO, EL, IT, PT, BE, HU)
- **RED II, Article 5:** Voluntary opening of national schemes (≥ 5% in 2023-26; afterwards 10%); potentially binding as of 2025
- **2030 RES governance:** “Financing Mechanism” (gap-filler + enabling framework) may trigger EU wide RES auctions
- **New funding line under future CEF**: for “cross-border renewables projects” → available grants (~ 1.2€ billion 2020 - 2027)

Countries with opening obligations

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Basic models of x-border auctions

Intensity of cooperation

1. „Unilateral opening“ – Only one country opens its national auction; the partner country may contribute to payments.

Simplest model; achieves fundamental benefits of cooperation

2. „Mutual opening“ – The cooperation countries both open their national auction schemes to another.

Higher transaction costs; reciprocal nature may increase public acceptance

3. Joint auction – The cooperation countries set up a joint auction.

Agreement on auction and remuneration design; increased auction volume may attract more bidders

Design principles for cross-border auctions

Bids need to be comparable

Auction and remuneration design must be the same for all participants

Adapt design to cross-border context

Consider political goals and market situation of countries involved + check applicability of all elements

Keep it simple

Avoid design choices and administrative procedures that increase complexity

Financial pre-qualification requirements should be implemented

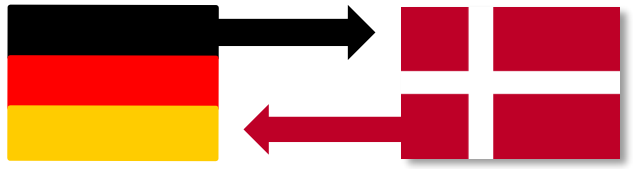
Given their easier implementation across Member States compared to material PQ

AURES II will provide a checklist on practical implementation for policymakers

Source: Navigant

German-Danish x-border pilot auctions: Dec 2016

- **First cross-border PV auctions:** mutually-opened auctions



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	German auction	Danish auction
Volume	**50 MW** completely opened	**20 MW** 2,4 MW opened

Results of the German-Danish auctions

- **Bids exceed tender volume 6 times:** 297 MW versus 50 MW auctioned
- **Low level of awarded bids:** 5,38 €ct/kWh (compared to 6.9 €ct/kWh at German national auction)
- **Awarded:** 5 bids of 10 MW each, all in Denmark → due to potential, availability of sites, limited alternatives

Key insights

- Cross-border auctions can be implemented successfully
- Danish bids were a lot more competitive
- Significant support cost savings for Germany
- Project promoters compete under in different national regulatory and market environments (regulatory framework is a key factor)

→ Accept that there is no „level playing field“ in cross-border auctions

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Financing Mechanism introduces EU wide auctions to bridge EU Targets & MS deployment

Co-legislators set the **Union**'s RES target (at least 32%) and framework for RES expansion

- Renewable energy target
- § Policy framework for EU Member States

The **EU financing mechanism**…

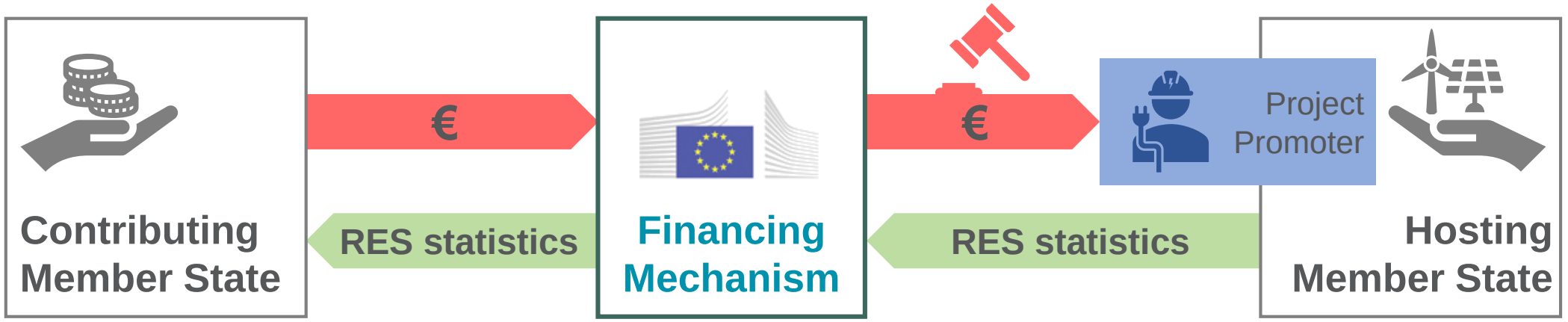
… introduces **EU wide auctions** to support MS to tap into low-cost RES potential for new projects

Member states contribute to EU RES target

- Deploy RES on their own territory through domestic support schemes
- Bilateral Cooperation Mechanisms with other MS to jointly deploy RES

Source: Navigant

MS can pay for statistical RES generation in the financing mechanism



- **Contributors** receive statistical RES target contribution
- Mechanism results in **continuous generation** of statistical benefits
- Mechanism focusses on **new RES projects**

Source: Navigant

New CEF-funding line for cross-border RES projects (~1.2€ bn)

Aim: Facilitate cross-border deployment of renewables through grants if the project has "EU added value" compared to purely national project (cost savings, innovation, GHG, etc.)

Individual project

e.g. two countries jointly financing a wind park via CoopMech

Multiple projects

e.g. technology neutral cross-border auction

Common characteristics:

MS cooperation | Cash flows | EU added value

CEF provides **grants for**
- studies (preparatory analysis, technical studies, e.g. to elaborate on details of cross-border effects), and
- works (investment aid to RES plants)

Member State **governments** and private **project promoters** can apply for funding

Source: Navigant

AURES II - Assist MS and the EC with the set-up of cross-border RES auctions

Cooperation case studies until early 2020:

- Develop **three practical case studies** of cross-border cooperation to specify design options (W-Europe, Nordic/Baltic region, S-E-Europe)
- **Tailor solutions** in collaboration with interested governments (providing input) and assess economic effects, using quantitative modelling

→ **Potential case study:** Technology neutral cross-border auction between **Hungary + ??**

→ **Let us know if you are interested!**

Four things to keep in mind

1. Cross-border auctions have the potential to reduce support costs and are likely to gain importance in the next years

2. Challenges in implementation exists, but can be overcome
   - Implement simple and transparent design
   - Accept that there is no “level playing field”

3. Framework at EU-level will facilitate cross-border RES deployment

4. AURES II provides option to assess potential cooperation case study

Thank you!

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AURES II

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Reports: http://aures2project.eu/reports/
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Newsletter: http://eepurl.com/gd42zz

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Back up slides…

How are cross-border auctions different from national auctions?

Within one auction, bidders face different national regulatory and market conditions and thus conditions for participation:

1) National regulatory framework: **2) National market conditions:**

Our recommendation:

- Accept that competition is created between project developers facing a wide range of context factors (same costs also exist in national scheme)
- Refrain from artificially leveling the playing field in order to tap into the full efficiency potential of the auction

Options to level regulatory differences (if needed):

1. Adjusting bids by the cost impact of the regulatory framework
2. **Implementing quotas** to limit the distributional effects
3. Aligning the regulatory framework

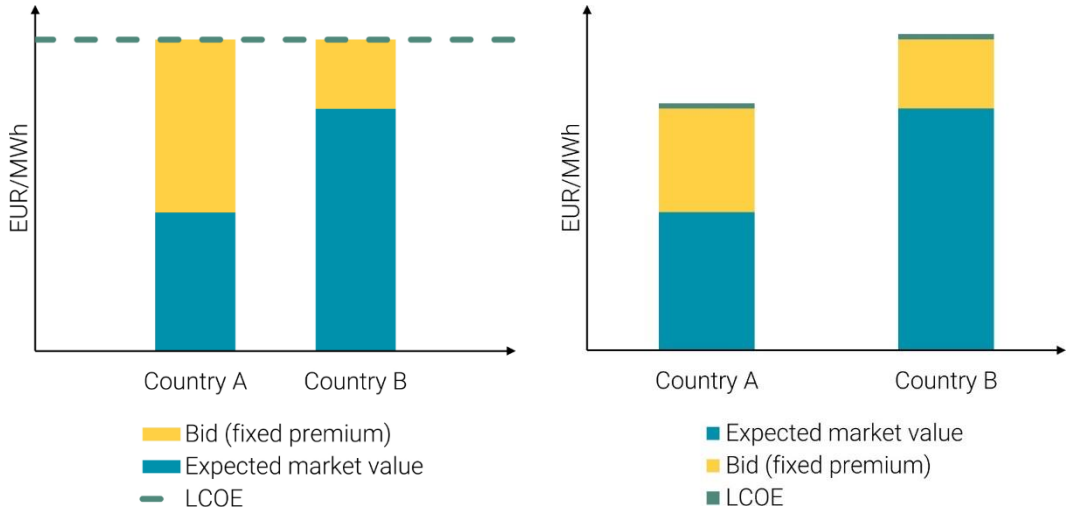
Projects are awarded by CEF in four stages

Application Stages	**Benefit for applicants**	**Level of detail required for application**
Prepara-tory Study	**Grants** to cover costs for preparatory analysis or modelling	Qualitative, high-level overview required
Status as c-b RES project	**Visibility** of being c-b RES project; **Eligibility** to apply next stages	
Grants for technical studies	**Grants** for technical studies; e.g. to elaborate on details of cross-border effects	
Grants for works	**Grants** for works (co-funding of projects); based on funding gap evaluations and EU added value	Quantitative, full-fledged assessment required

Source: Navigant

Premium design

- Premium design
  - Fixed premium
    - Depends strongly on market values
    - Can lead to inefficiencies
  - Sliding premium based on national/average market values
    - Lower cost of capital
    - Orients on LCOE
  - Solution
    - For simplicity purposes, use national premium design



Allocation of cost and benefits

Impact	Host MS	Paying MS
Economic impacts		
Cost-effectiveness of RES support		
Creation of jobs		
Innovation effects		
Transition of economic structures towards decarbonisation		
Environmental impacts		
Landscape and environment		
Air quality		
Energy system impact		
Energy system costs for RES integration		
Security of supply		
Transition of national energy system towards decarbonisation		
Wholesale price impact		
Other impacts (political / societal / regulatory)		
Acceptance of RES deployment		
Changes to national legislation/regulation		
Fostering political cooperation between countries		