



Bundesministerium  
für Wirtschaft  
und Energie

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# The new auction system for PV under the EEG 2017

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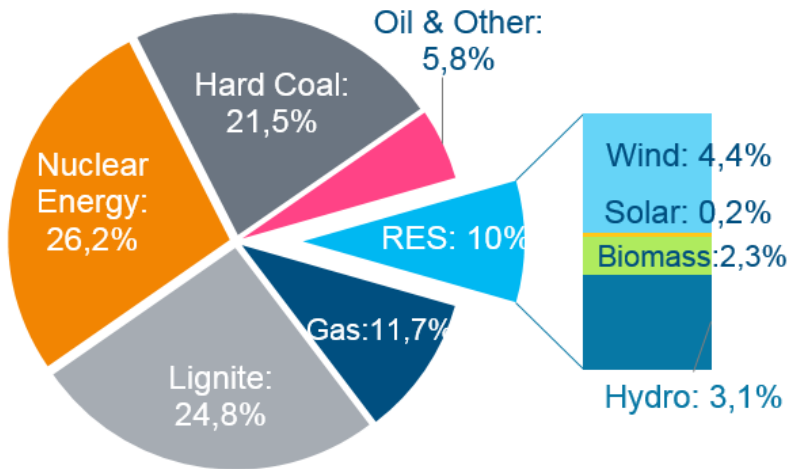
# Structure

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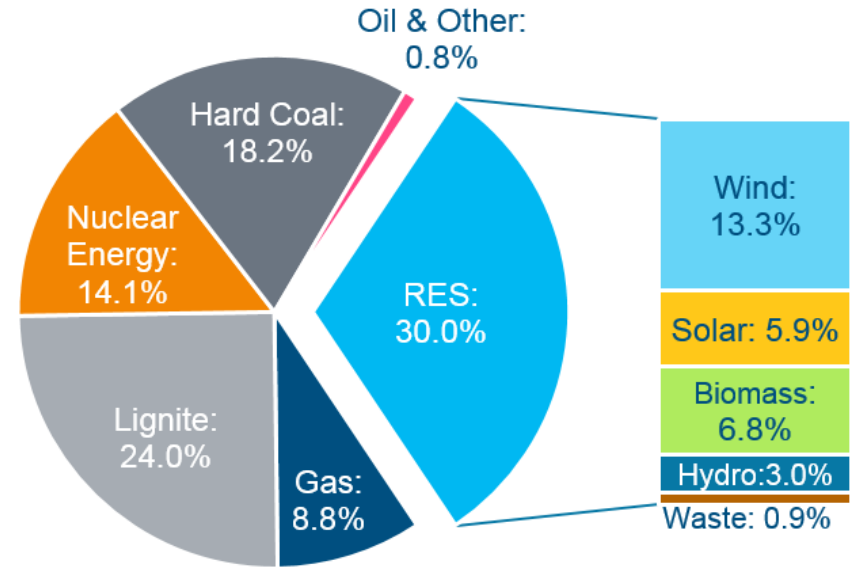
- Objectives & challenges of introducing tenders
- Pilot Phase for ground mounted PV
- Key points EEG 2017
- Cross-border support under the EEG 2017

# Background

**2005** total: 622,6 TWh  
renewables share: 62,5 TWh



**2015** Total: 647.1 TWh  
renewables share: ~ 194 TWh



- Renewables have overtaken each conventional source to become the largest electricity source in just ten years.

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# Objective of introducing tenders

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- Switching the funding for renewable energy from prices fixed by administration/ government/ parliament to prices set by **competitive auctions** by the year 2017
- System change from Feed-In-Tariffs to market instrument
- Auctions can help to achieve further support cost reductions and a faster response to market developments



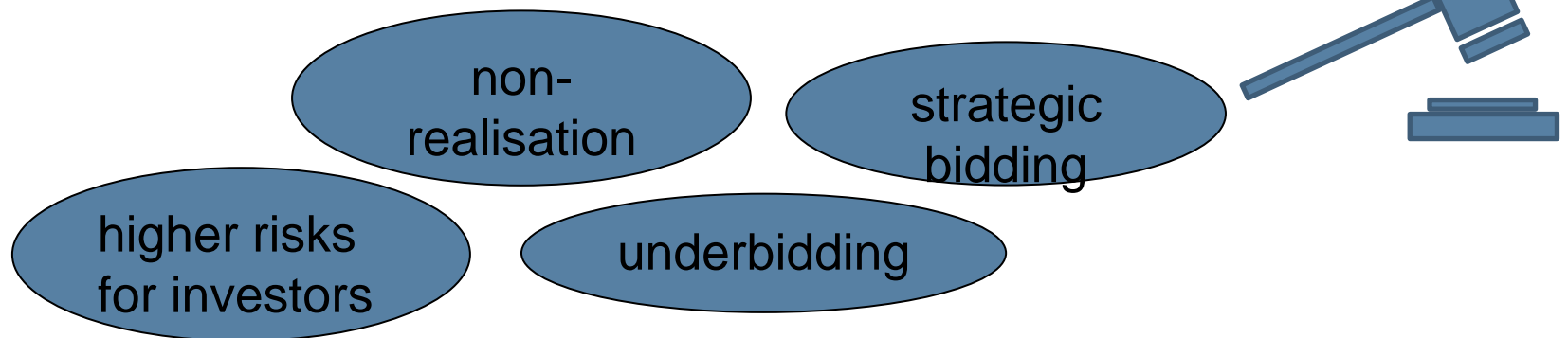
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# Introducing tenders: Challenges

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- Competition as precondition
- Several challenges need to be solved before rolling out tendering, e.g.



- Necessary experience needed to be gained → pilot phase

# Pilot phase for ground-mounted PV: Results

	15.04.15	01.08.15	01.12.15	01.04.16	01.08.16
Tendered volume	150 MW	150 MW	200 MW	125 MW	125 MW
Bids (volume)	715 MW	558 MW	562 MW	540 MW	311 MW
Successful bids (awarded volume)	25 (157 MW)	33 (159 MW)	43 (204 MW)	21 (128 MW)	25 (130 MW)*
Ø reference value	9,17	8,48	8,0	7,41	7,25
Corresponding FIT EEG 2014	9,02	8,93	--	--	--
Price mechanism	Pay-as-bid	Uniform	Uniform	Pay-as-bid	Pay-as-bid
Realisation rate	25%	27%	6%	7%	--

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# Pilot phase: Results from 5 rounds so far

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- Lessons learned:
  - Intensive competition
  - Volume several times oversubscribed
  - Decreasing reference value from 1st to 5rd round (9,17 ct/kWh -> 7,25 ct/kWh, 20 % in 18 month)
  - Different actors participated, also smaller actors & projects have been successful
  - Implementation of projects remains to be seen (two years time)

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# EEG 2017: key points

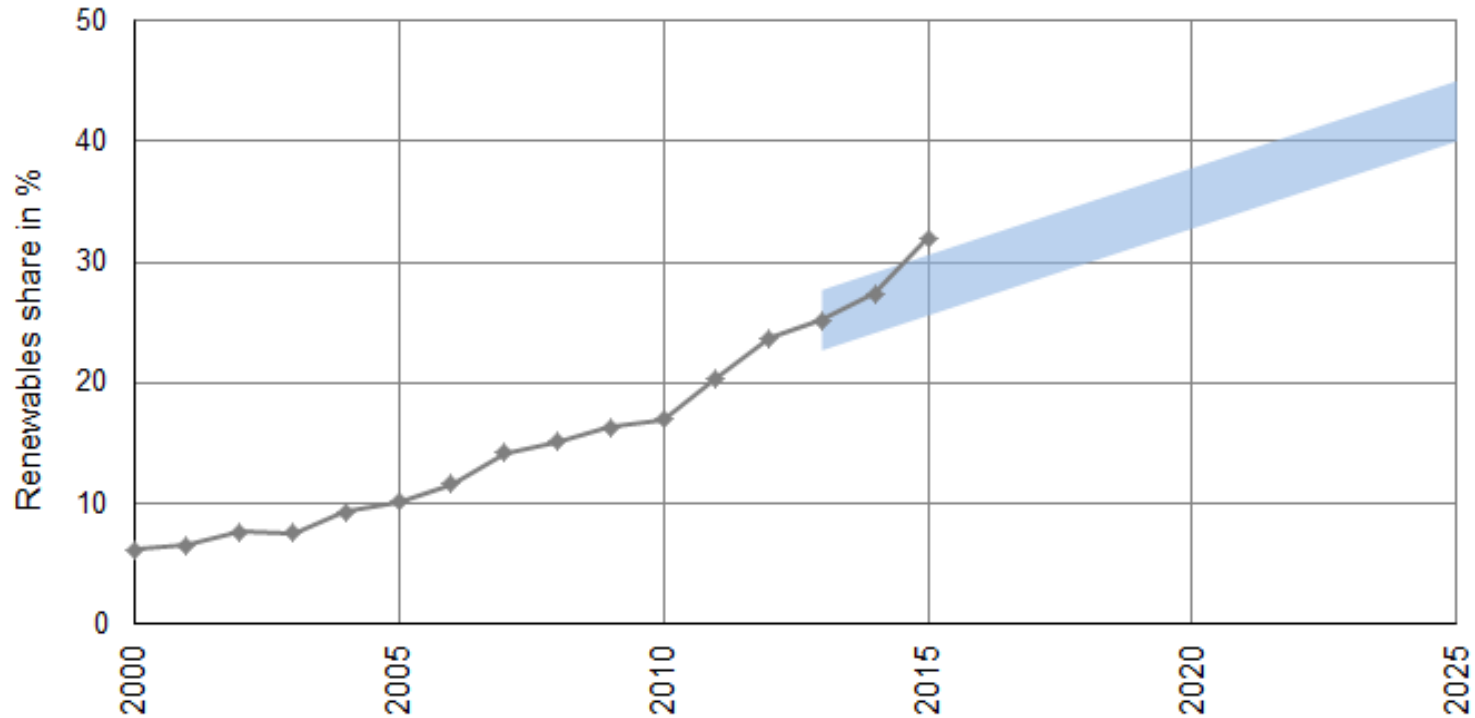
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The revision is based on the following **three principles**:

1. Future RES expansion will be **cost-efficient**.
2. All stakeholders will have a fair chance in the auctions.  
**Stakeholder diversity** will be maintained.
3. The **deployment corridor** for renewable energy will be **adhered** to.



# Deployment corridor EEG 2014 / EEG 2017



## Overall target corridor:

- In 2025: between 40% and 45% RES-E
- In 2035: between 55% and 60% RES-E
- Focus on Wind and PV as most cost-effective solutions

## Capacity additions

- PV 2.5 GW per year each (600 MW in the tender),
- Wind onshore 2,8 GW (2,9 GW from 2020)
- Offshore wind 15 GW by 2030
- Bioenergy 150 MW (later 200 MW) per year

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# RES technologies up for auction

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- From 2017, funding will be **auctioned** for:
  - onshore wind energy (2,8 GW; 2,9 GW from 2020 per year)
  - offshore wind energy (15 GW by 2030)
  - photovoltaics (600 MW per year)
  - Biomass (150 MW, later 200 MW per year)
- PV installations of the following categories are eligible to bid:
  - **ground-mounted installations,**
  - **rooftop installations** and
  - **installations on other physical structures, e.g. landfills**
- **Exempted:** installations  $\leq 750$  kW (biomass:  $\leq 150$  kW)

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# Stakeholder diversity

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- Objective: Maintaining a **high level of stakeholder diversity**
- This is the intention behind the **750 kW de minimis threshold**:
  - This mainly exempts small and medium-sized PV installations from the obligation to take part in auctions.
  - 76% of the deployment corridor for PV (1.9 GW per year) are reserved for small and medium-sized PV installations
- This is also the aim of the **simple and transparent auction design**.

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# Features of PV auctions

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- 3 auction rounds per year conducted by the Federal Network Agency
- Auction rounds open to single, sealed bids
- Bids for reference value
  - Installations are paid sliding market premium
- Only criterion for award: price
- Bids will be accepted, starting with the lowest, and until the amount of capacity that is being auctioned is reached
- the amount of funding corresponds to the individual bid (pay as bid)
- Maximum price (published in advance)

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# Cross-border support: background

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- In the case of cross-border support /opening of support schemes , support is paid to installations located in other Member States
- Key goals:
  - Regional integration of national energy policies
  - EU compatibility of national support schemes
  - Joint learning curve and alignment of support schemes
  - Using regional synergies (e.g. diversification of RES)
  - More competition in auctions
- Germany will open up support for 5% of yearly new installed renewable capacity to installations in other Member States from 2017 onwards (ca. 250 MW per year)

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# Basic Requirements

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Cooperation  
agreement

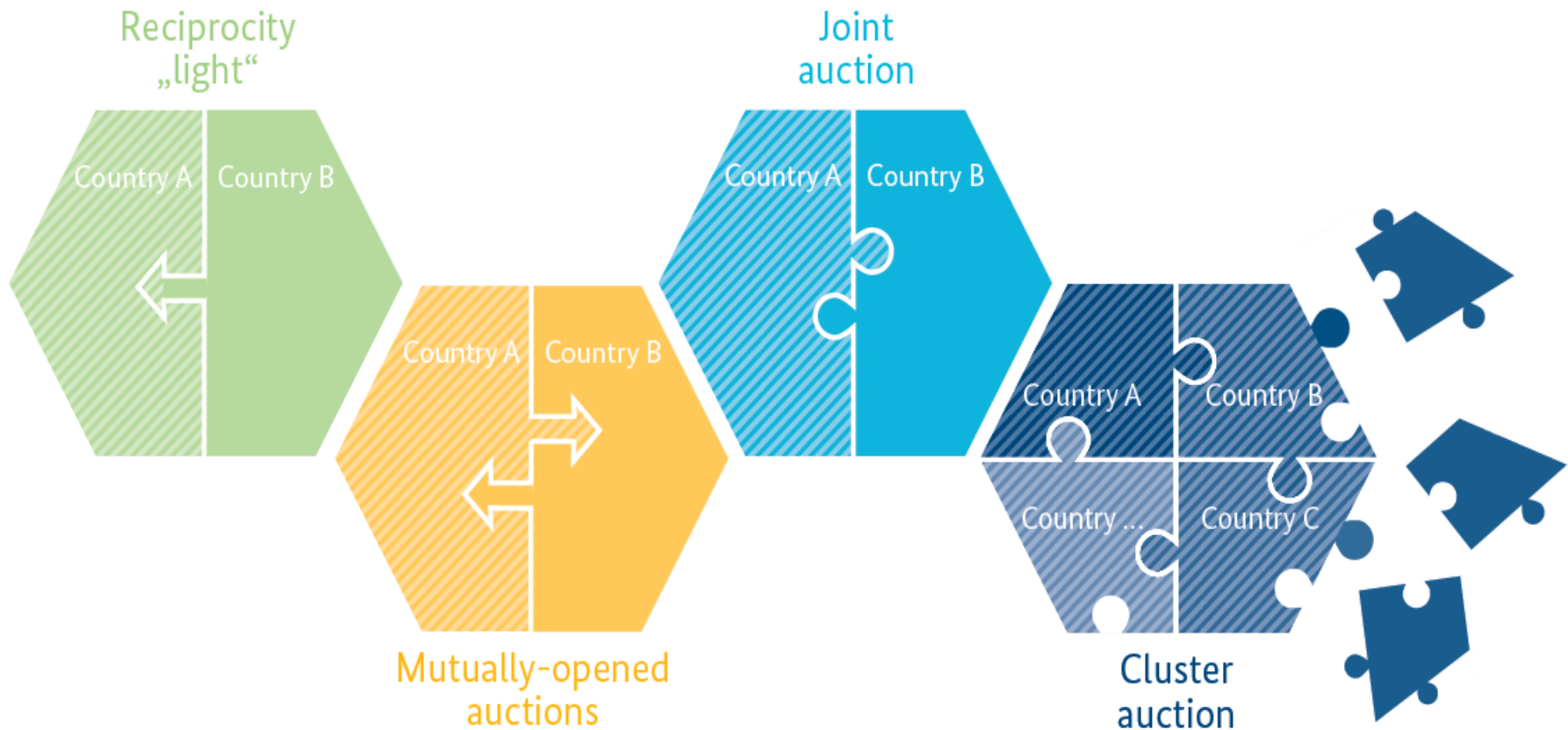


Reciprocity

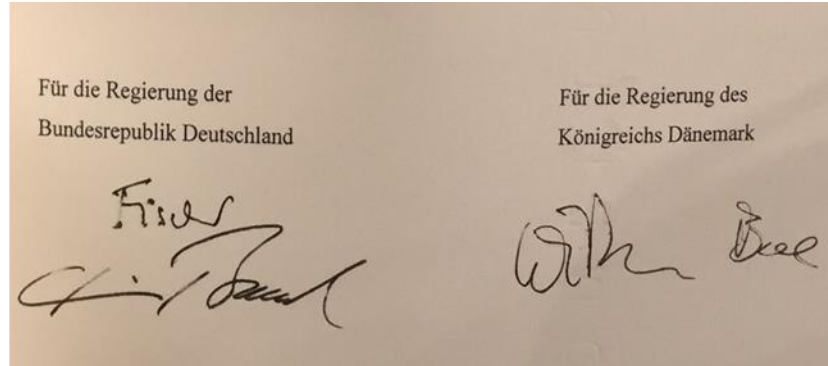


„Physical“ Import

# Models for Reciprocity



# Cooperation pilot with Denmark



- Cooperation agreement for mutually opened auctions for ground mounted PV installations signed in July 2016
- First cooperation of its kind
- German opened auction formally published in mid-October
  - Volume: 50 MW, fully opened for installations in Denmark
  - bids can be submitted until November 23, 2016
- Danish opened auction will follow soon
  - Volume: 20 MW, of which 2.4 MW will be opened for installations in Germany



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# Cross-border support under the EEG 2017

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- Substantially higher volumes than in pilot phase (5% correspond to ca. 250 MW)
- Extension of cross-border support to non-ground-mounted PV and onshore wind
- Entry into force of revised ordinance for cross-border support foreseen for end of 1st quarter of 2017

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Thank you for your attention.

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