



Federal Ministry
for Economic Affairs
and Energy



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The German Wind Energy Market – Policies, Market Opportunities and Outlook

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Facilitator



Agenda

1. German Wind Energy Association at a glance
2. Energy Transition Targets
3. Wind Energy in Germany – Development and Status
4. Market Opportunities
5. Outlook

About the German Wind Energy Association



One of the largest associations in the field of renewable energies (more than 20,000 members)

Political work at national/federal and regional level

Partner of 1,100 companies (manufacturers, suppliers, project planners and experts) and of 2,200 operating companies

Member of other associations and committees at an international level (WindEurope, EREF, GWEC and WWEA)

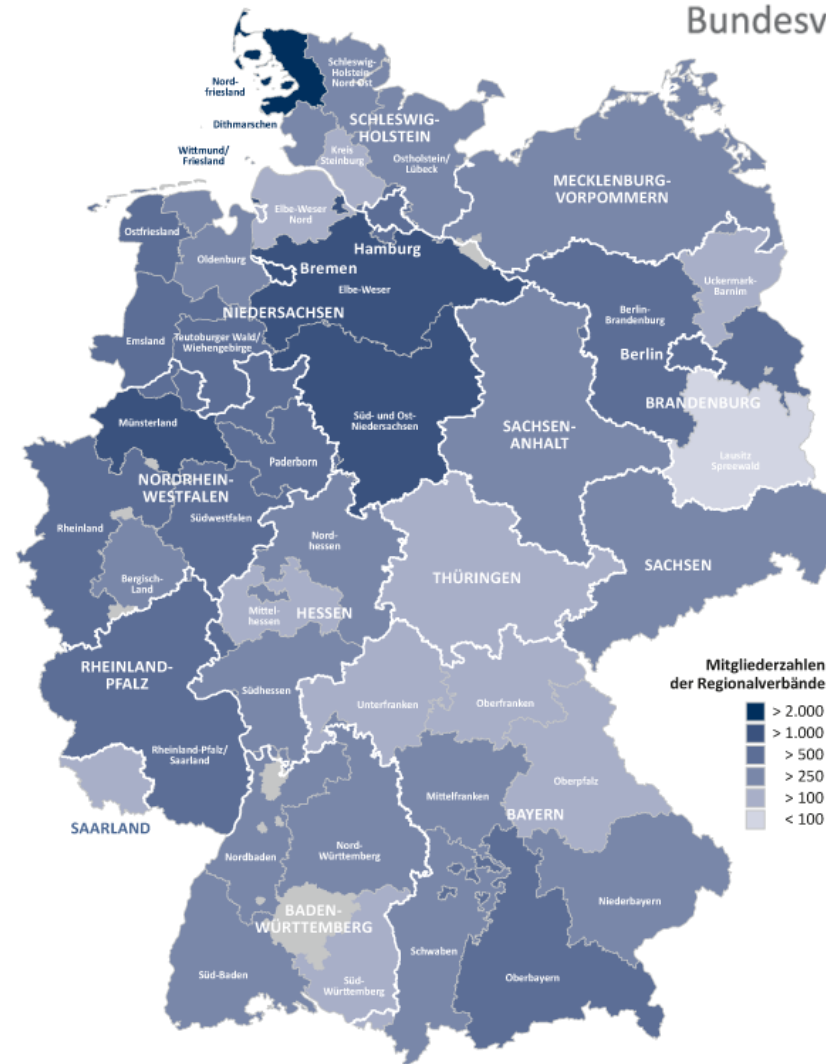
Regional Associations

13 federal state associations and 42 regional associations

Intensive networking, consultancy and local support

Regional exchange between economy and politics

Parliamentary events



Energy Transition Targets

Renewable Energy Sources-Act:

percentage of gross electricity consumption:

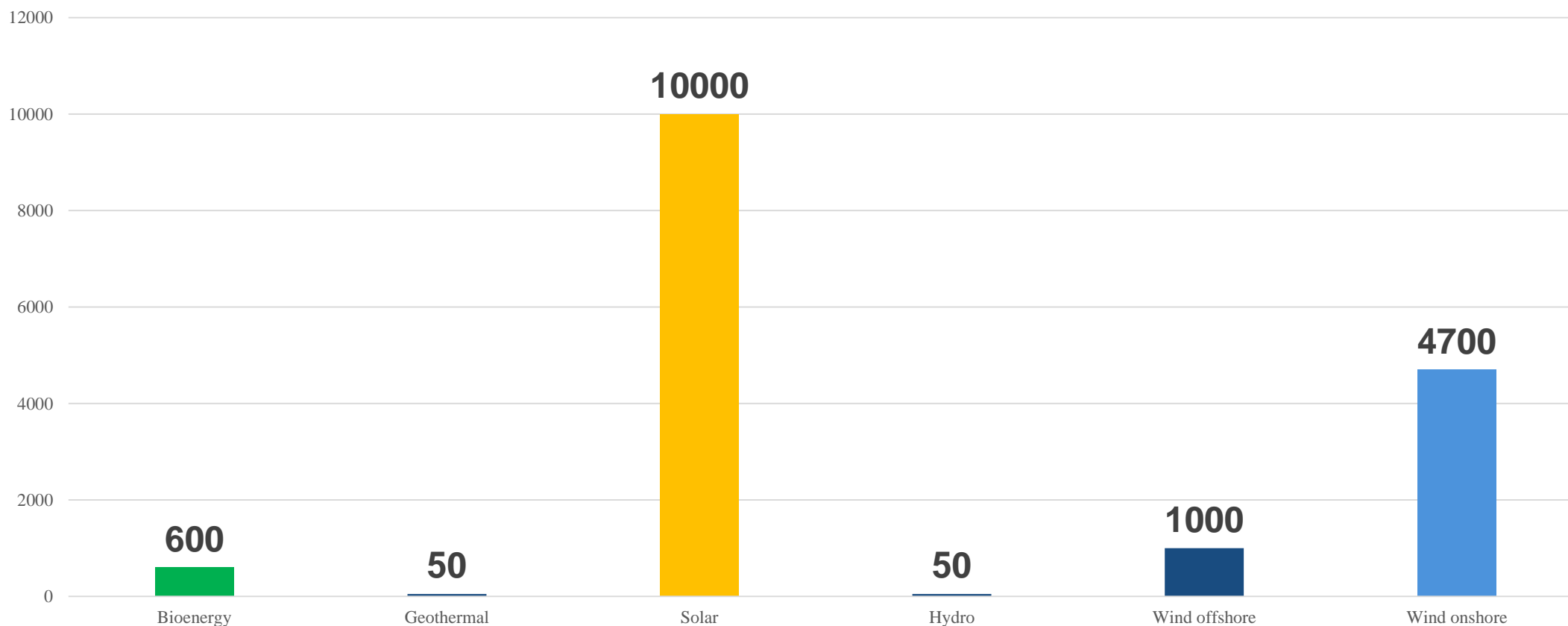
- 40 to 45 percent by 2025
- 55 to 60 percent by 2035
- at least 80 percent by 2050

Development corridor: onshore wind energy: 2,500 megawatts (2,900 megawatts tendered from 2020)

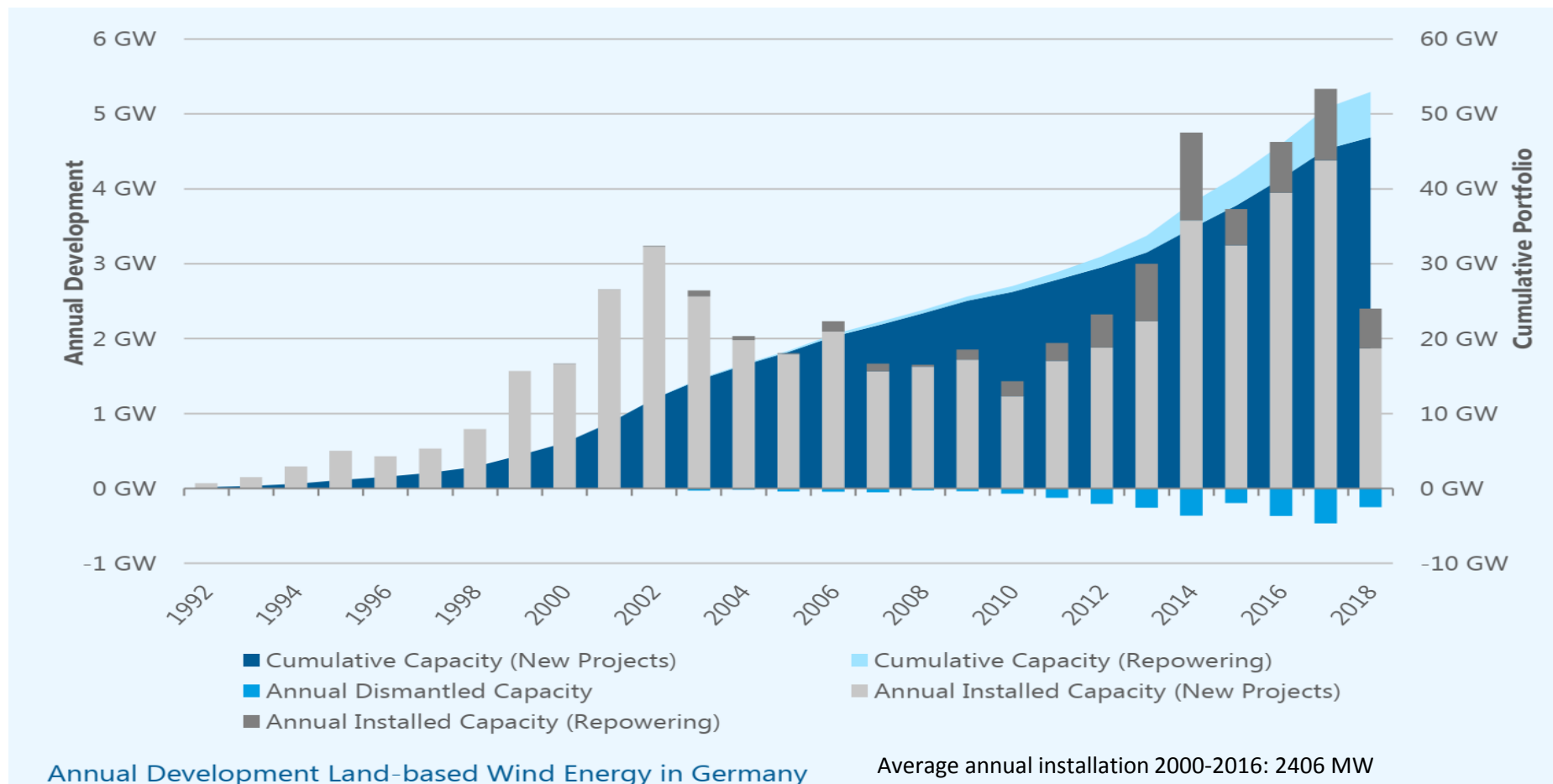
Coalition agreement:

65 percent by 2030 [BEE-Scenario: 4,700 megawatts wind onshore per year]

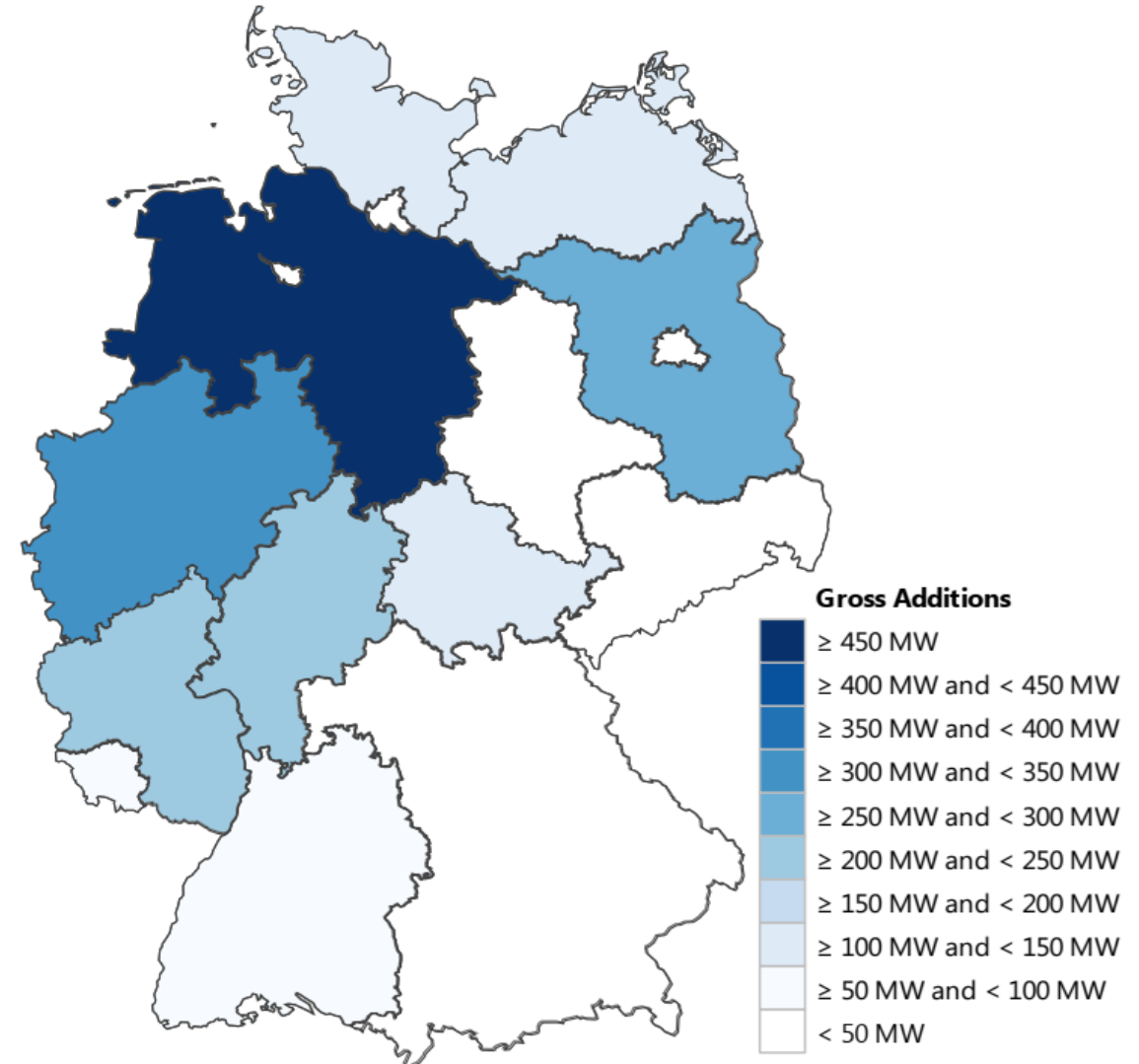
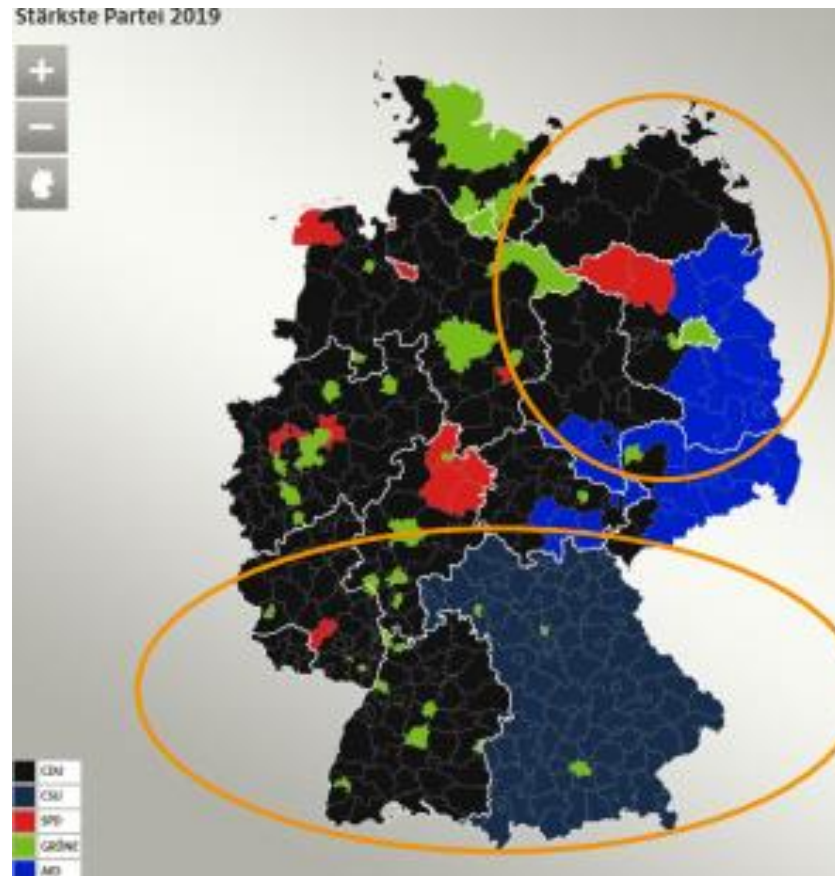
Expansion of Renewable Energy Plants: Annual Installed Capacity 2021 - 2030 (MW)



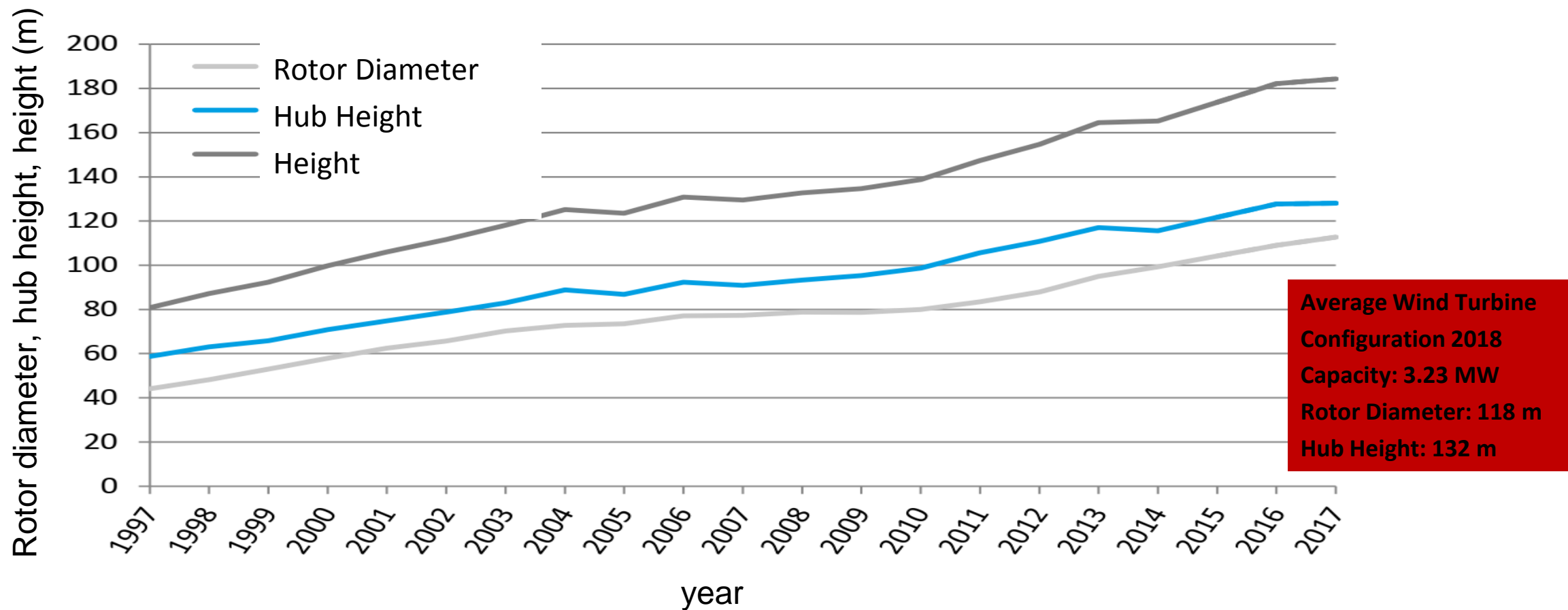
Annual Development Land-based Wind Energy in Germany



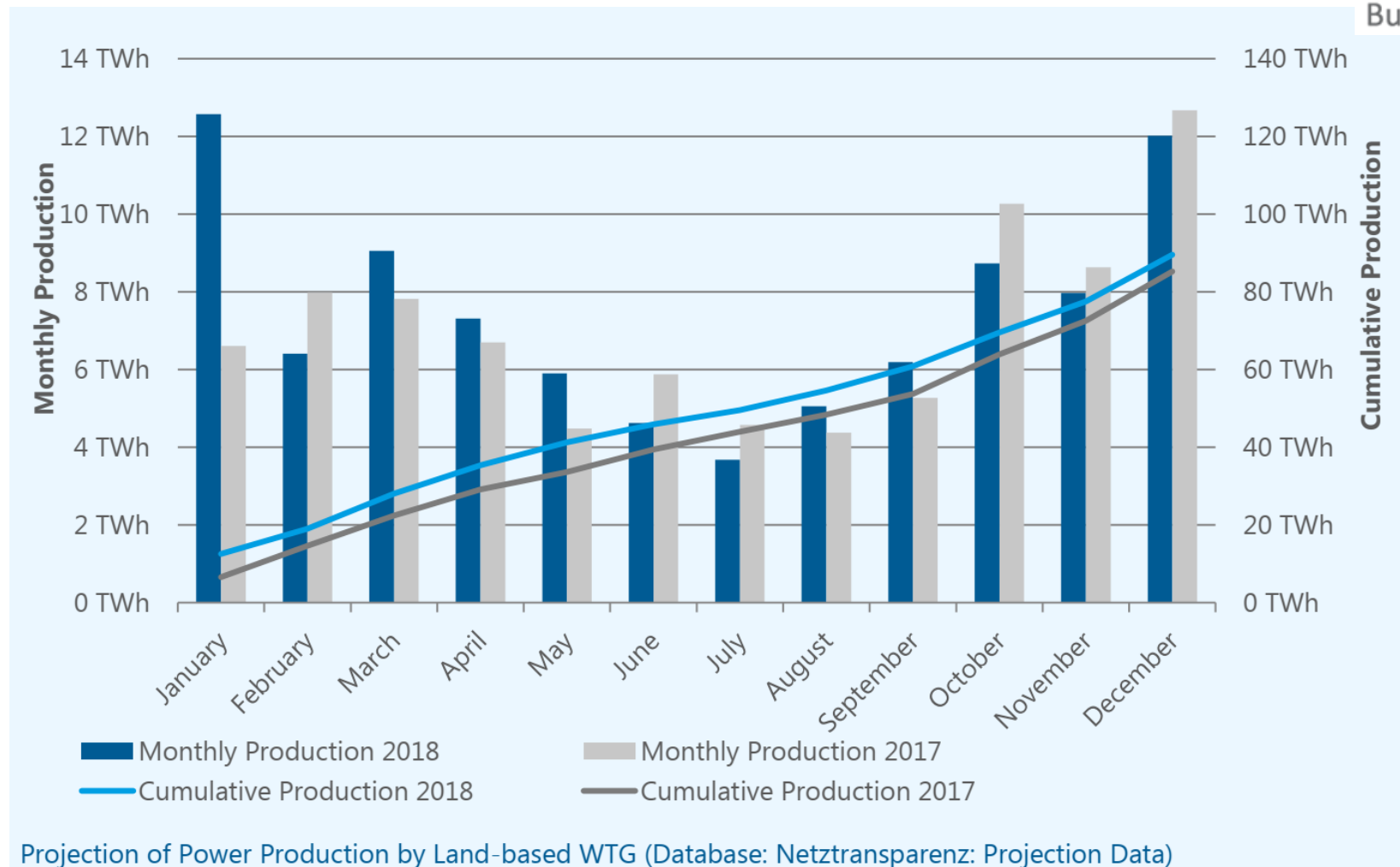
Regional Distribution of the Cumulative Capacity European Election Results



Average Wind Turbine Configuration



Electricity Production by Land-based Wind



Projection of Power Production by Land-based WTG (Database: Netztransparenz: Projection Data)

Success by Reliability

Renewable Energy Sources Act (EEG)

Purpose of the law:

- Sustainable development of energy supply
- Protection of climate and environment
- Reduction of energy supply costs
- Promotion of renewable energy technology

Reliable regulatory framework:

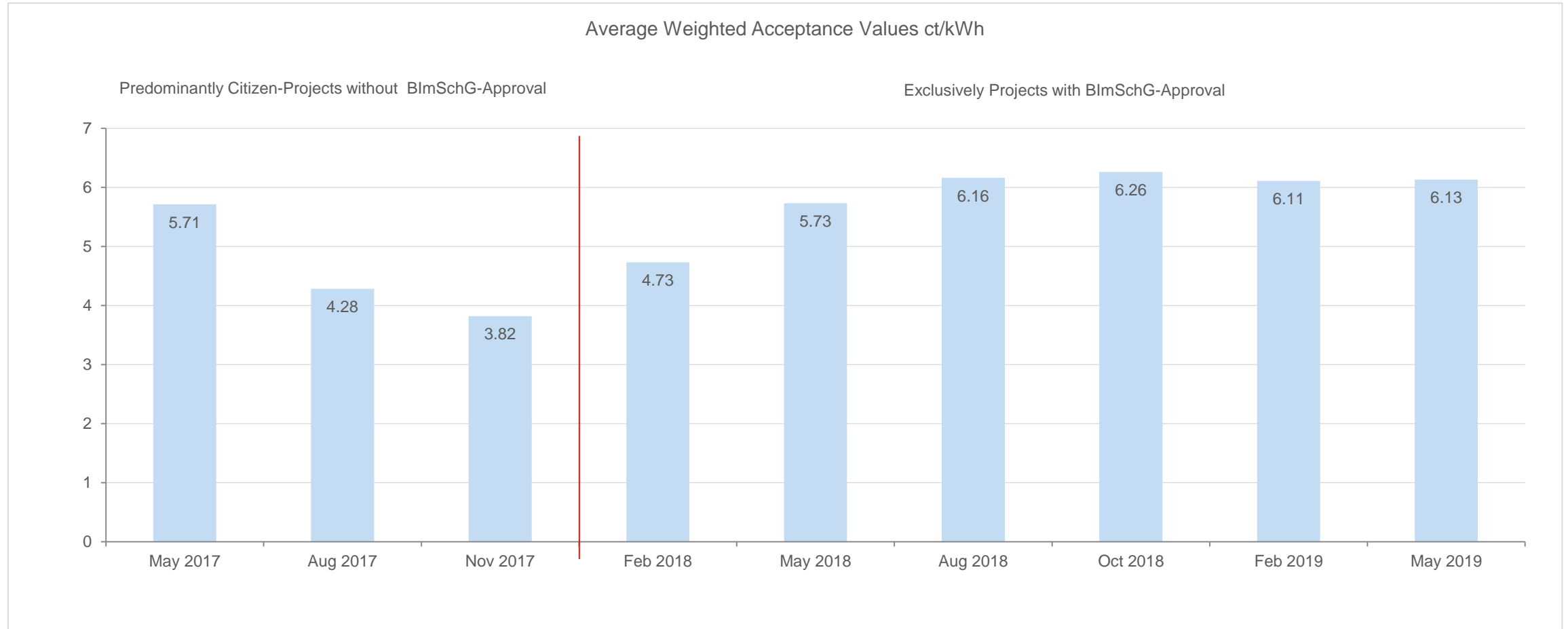
- Fixed remuneration for fed-in electricity for 20 years
- Guaranteed grid access / priority feed-in
- Decentralization and accessibility for citizens

Key Elements of EEG 2017 - Auctions Instead of Fixed Funding Rates

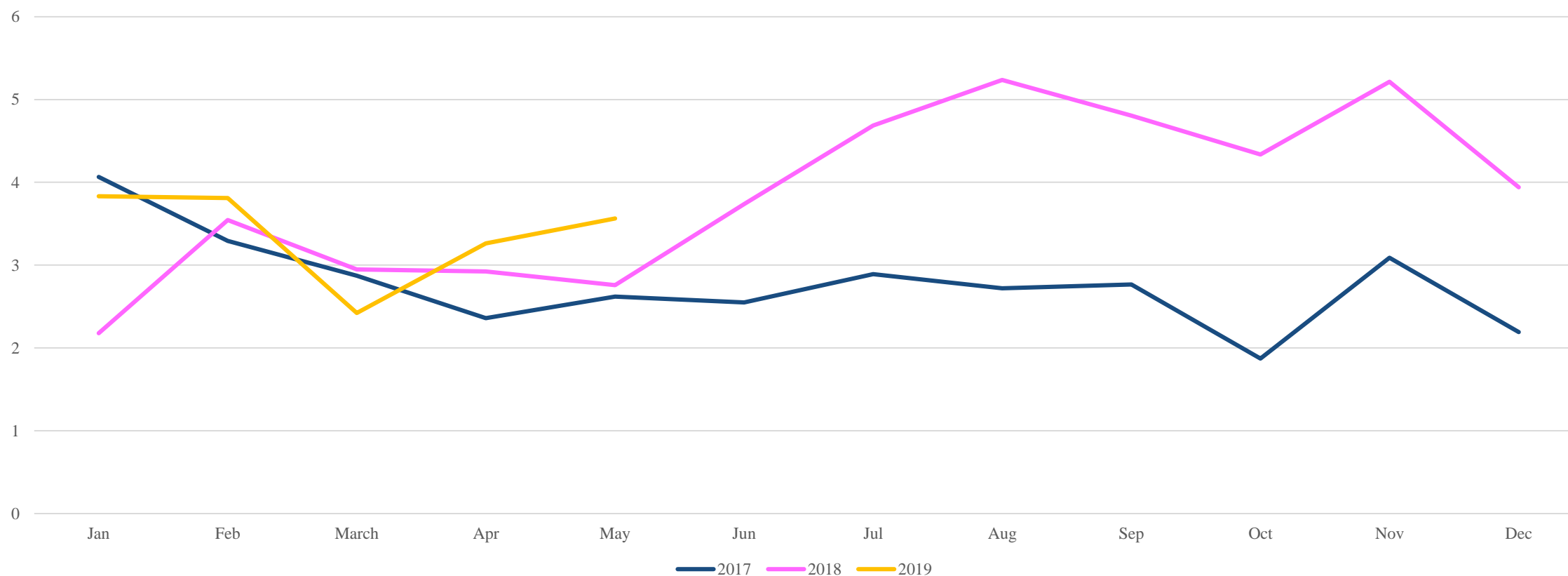
- **competitive auctions** for onshore and offshore wind, photovoltaics and biomass since 2017
- participation requirements: **approval** under the Federal Immission Control Act ("BImSchG") and **security-deposit** „Bid Bond“ of 30 EUR/kW
- Bids will be placed on the **sliding market premium**
- **Timeframe:** 30 months, contractual penalties in case of non-completion
- **Maximum level for bids in 2019:** 6.2 ct / kWh for the 100-percent reference site, over 20 years

Auctions

Bids and Awarded Bids 2017 - 2019

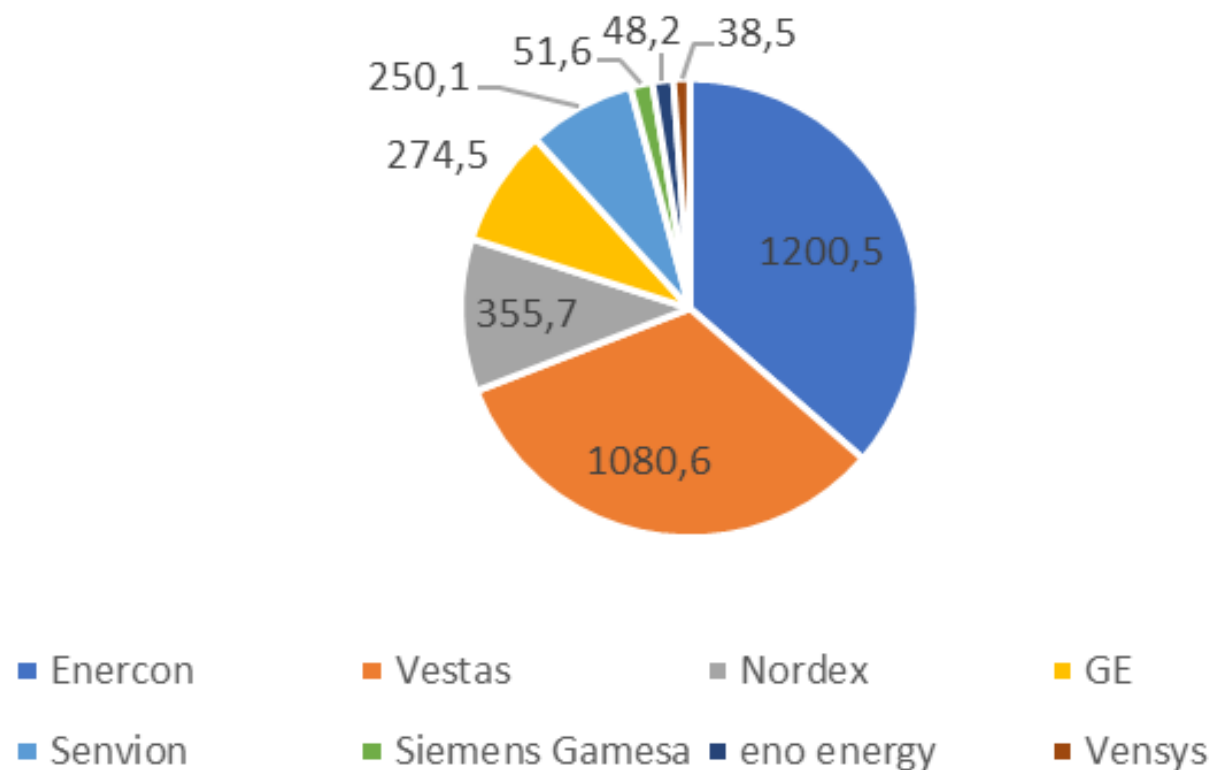


Monthly Market Values for Land-based Wind Energy (ct/kWh)



Manufacturer Share

Manufacturer Share after 9 tender rounds
Capacity (MW)



Market Opportunities



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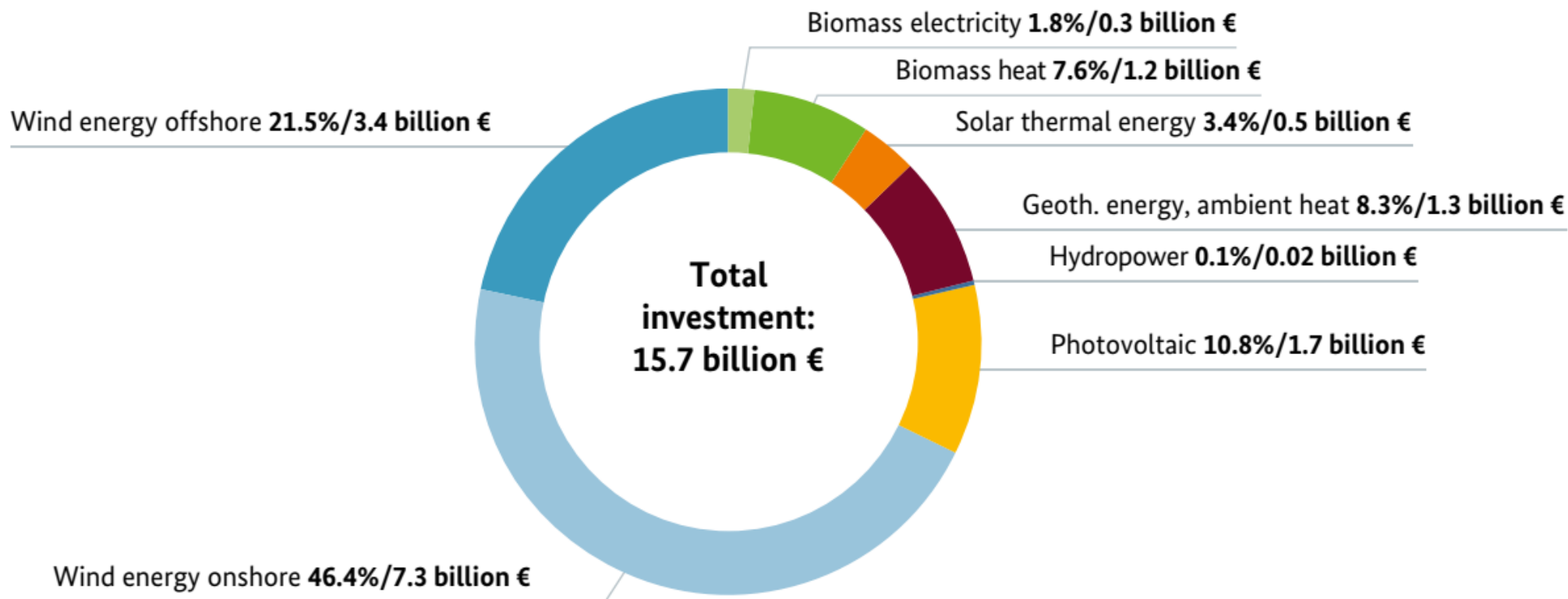


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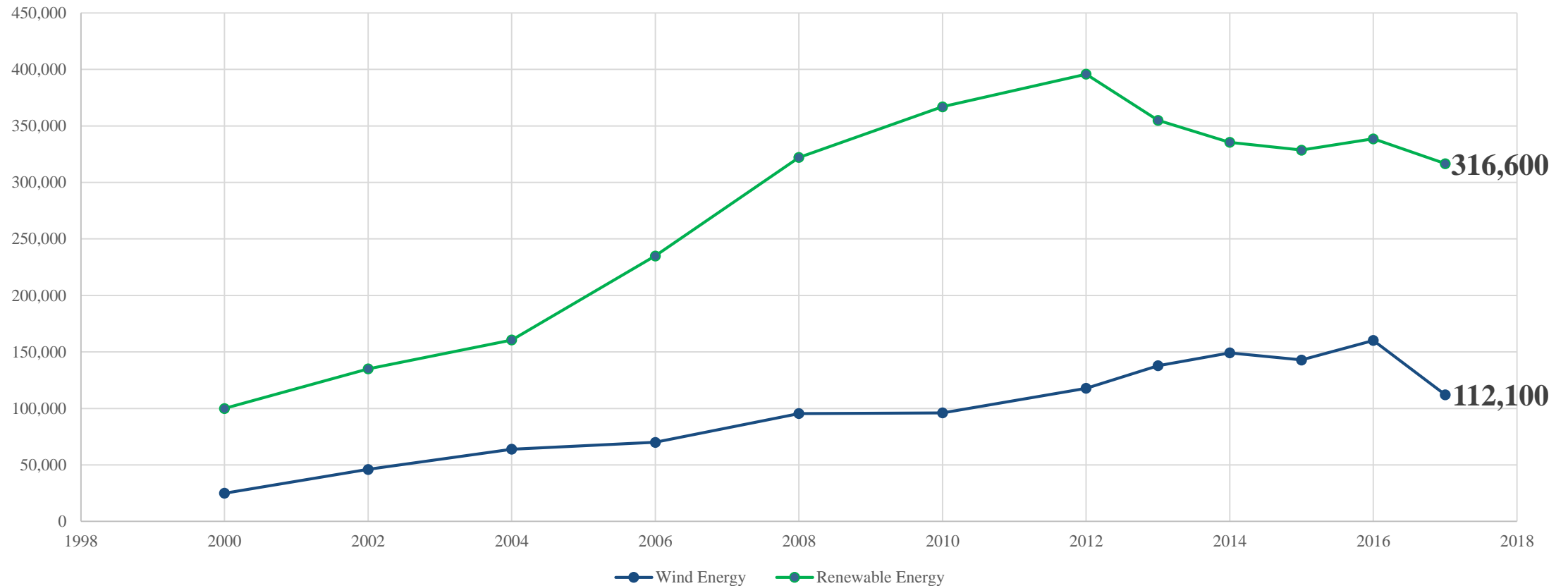


Investment in the Building of Renewable Energy Installations 2017



Source: Calculations made by the Centre for Solar Energy and Hydrogen Research (ZSW); rounded figures

Employment in the Renewable Energy Sector in Germany 2017



Outlook



Current and Future Topics

- Post Subsidy Period: end of subsidy period by the end of 2020 (4 gigawatts), repowering or dismantling?
- CO₂ – Price?
- Fostering grid expansion and reinforcement as well as flexibility options to facilitate system integration
- Enabling B₂B marketing options and real-time supply to bring renewable electricity into industry, H&C and mobility
- Cross-sectoral and cross-border approach to energy planning for a successful German and European energy transition



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Thank you for your attention!

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