

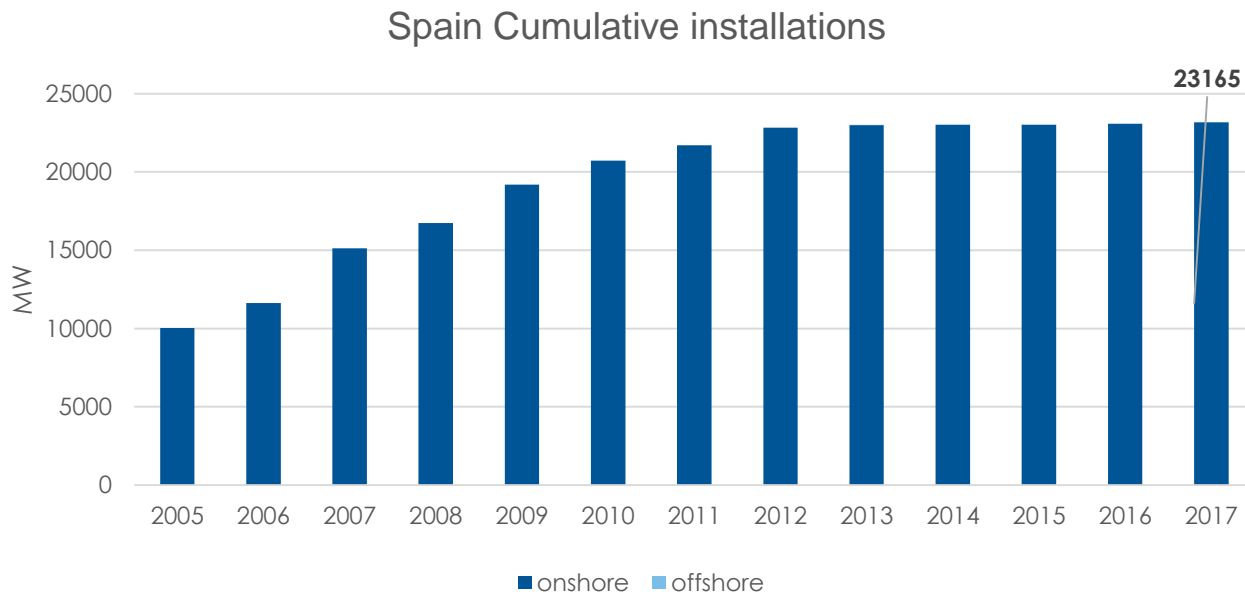


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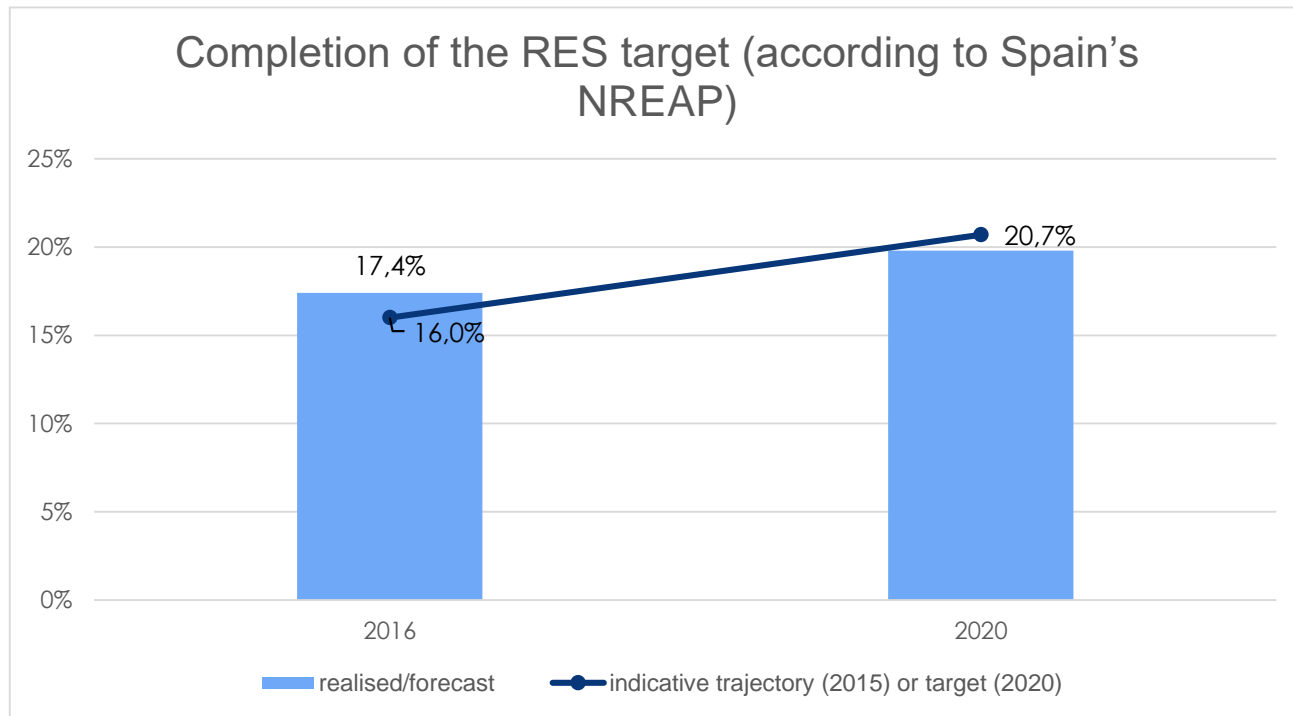
Energy & Climate Policies Director

**The Spanish Auctions,
2016-2017 and the 2030
Objectives**

> Recent evolution of the Spanish wind market



> In 2016 it was evident that without more installations the 20% RES would not be achieved



THE THREE AUCTIONS 2016-2017 8.500 MW awarded

> 4.607 MW awarded to Wind

(plus 450 MW for Canary Islands Quota)

Auction Design: Investment Discount

Jan 2016: "market price"	May 2017: 42,53 €/MWh*	Jul 2017: 33,41 €/MWh*
<ul style="list-style-type: none">• Technology differentiated• Total: 700 MW• Wind: 500 MW• Biomass: 200 MW	<ul style="list-style-type: none">• Technology neutral (3 techs)• Total: 3.000 MW• Wind: 2.979 MW• PV and Other: 21 MW	<ul style="list-style-type: none">• Technology neutral (2 techs)• Total 5.037 MW• Wind: 1.128 MW• PV: 3.909 MW

* Nominal values that establish a sort of "floor" below which a compensation can be obtained depending on a variety of factors.

> Factors behind the results of the Auctions

The “exceptional push” factors:

- **No visibility:** auctions announced without planning/schedule.
- **More than 6.000 MW of stalled pipeline projects**, due to four year standstill (13-16) (the Spanish market was installing about 1.500 MW/year before the Reform)
- **Expiration of existing permits in 2018** (Building/Environmental/Grid)
- **Some companies need to keep market share in generation:** Closure of coal plants in 2020 due to EU environmental regulations.

The other, “normal” factors:

- **Low capital costs:** the average interest rate for credits above 1 M € has fallen 44% since 2011-13, from 3,08% to 1,73% (BdE)
- **Technology improvements:** CAPEX costs have fallen 30-40% since 2008-2010, capacity factor has improved 20-30% since 2011-12.
- **Expected market price** (43,90 €/MWh), higher than result of auctions.

> Viability of merchant plants after the auctions?

Problems perceived in 2017:

- A. No incentives vs **fiscal penalties.**
- B. **No exceptional framework** (pipeline/permits/market share)
- C. **For sure - Overcapacity** in Spanish system
- D. **Perhaps - Less incentives for existing plants** (loss of investor confidence)
- E. **Probably - Higher interest rates** from banks



Investment
signals in Market
price? No

Visibility? No

Confidence? No

> Messages after the auctions

- **Wind is competitive:** The results of these auctions show that wind power is currently the technology that can bring more energy at a lower cost to meet 2020 targets.
- **Adequate Planning:** Energy Planning for the coming years is needed. It must take into account Spain's energy and decarbonization needs in the long term and guarantee a balanced mix among technologies.
- **Visibility beyond 2020:** a calendar of tenders to give visibility to the renewable sector beyond 2020 is needed.
- **Logistical challenge:** All players involved – private and public - need to work hand in hand in order for all projects to be fully functioning by the end of 2019.

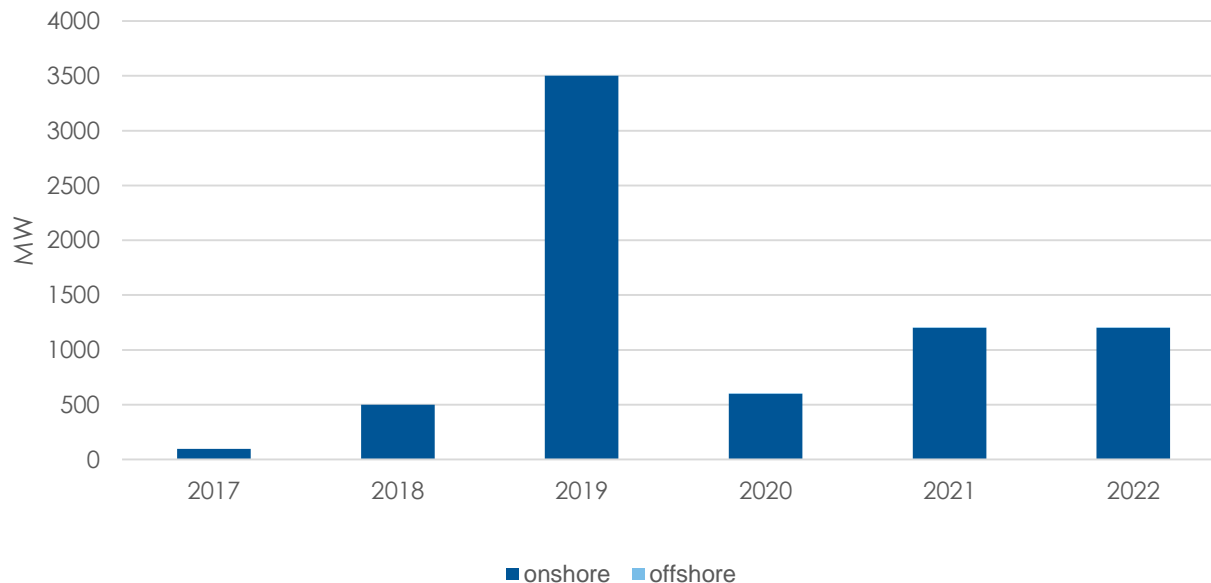


Current industrial, financial and legal situation might not stay the same after 2020, thus affecting the results of future auctions.

BEYOND 2020 AND THE EFFECT OF 32% RES AT EU LEVEL

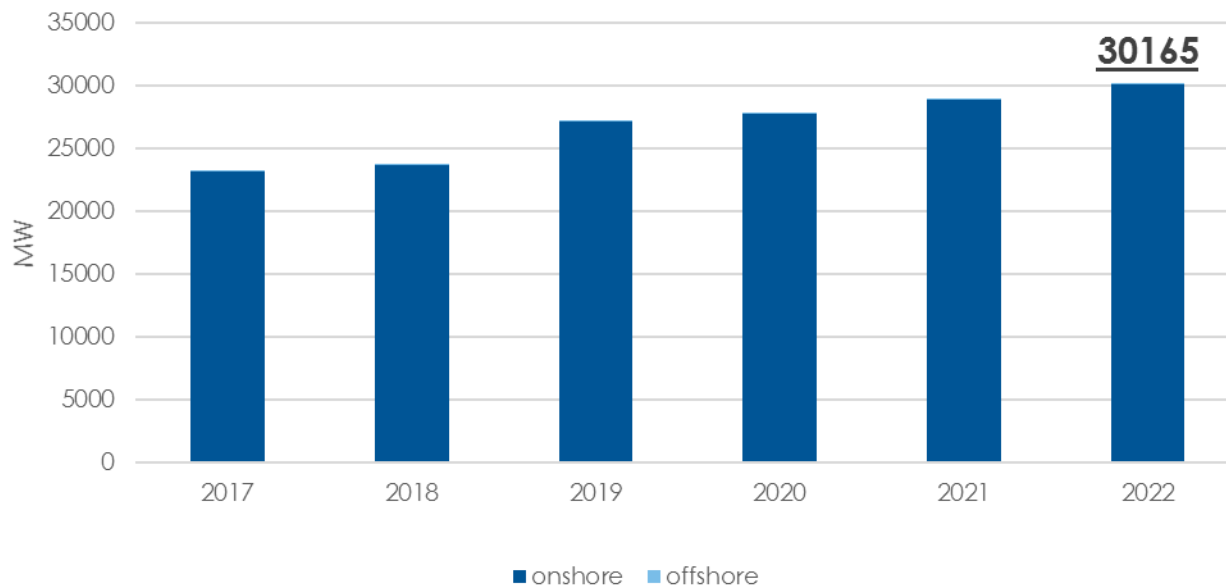
> 7.000 MW to be installed up to 2022 (central scenario)

Spain forecast yearly installations (Central Scenario)



> 30 GW by 2022

Spain forecast cumulative installations (central scenario)



> How could we achieve a 1,5 GW/year goal after 2020? Without incentives?

- A. **Ambitious RES and CO2 national objectives** with binding 2 years interim targets.
- B. **Upgraded Market design:** Stabilization Mechanisms for Market price + increasing of CO₂ price.
- C. **Increase power demand** with transport electrification policies.
- D. **Reduce fiscal burden** for wind technology
- E. **Establish schedule of yearly auctions (2018-2030)** (new installations & repowering); **auctions at least 3 years before planned connection to grid.**
- F. **Enable PPAs** and determine buyer of last resort.

**Attractive Market with Investment signals + Bigger demand
+ Visibility + Regulatory Stability**

> Market prices giving the right signals?

Futures indicate higher power prices in the Iberian Market: 49-54 €/MWh (OMIP)



YR-20	€53.58	⬇️
YR-21	€50.08	⬇️
YR-22	€49.58	⬇️
YR-23	€49.33	⬇️

CO2 Price is rising (ICE)



Natural Gas Price is rising (OMIP)



YR-19	€27.40	⬇️
YR-20	€24.93	⬇️
YR-21	€24.93	⬇️

> Beyond 2020 – Looking at 2030

- Current Government will likely establish an ambitious RES objective: 35-40% (?)
- Market Price futures 2019-2023 in 60-48 €/MWh range. PPAs possible.
- Auction schedule to be announced soon (?)
- Volume (in accordance with RES objective and planning): 1.500-2.500 MW/year (?)



THANK YOU !

