



Associação  
de Energias  
Renováveis



# MERCADO E RENOVÁVEIS

PORTUGAL RENEWABLE  
SUMMIT / 2018

Energias  
em Movimento



**EUROPEAN TRENDS**

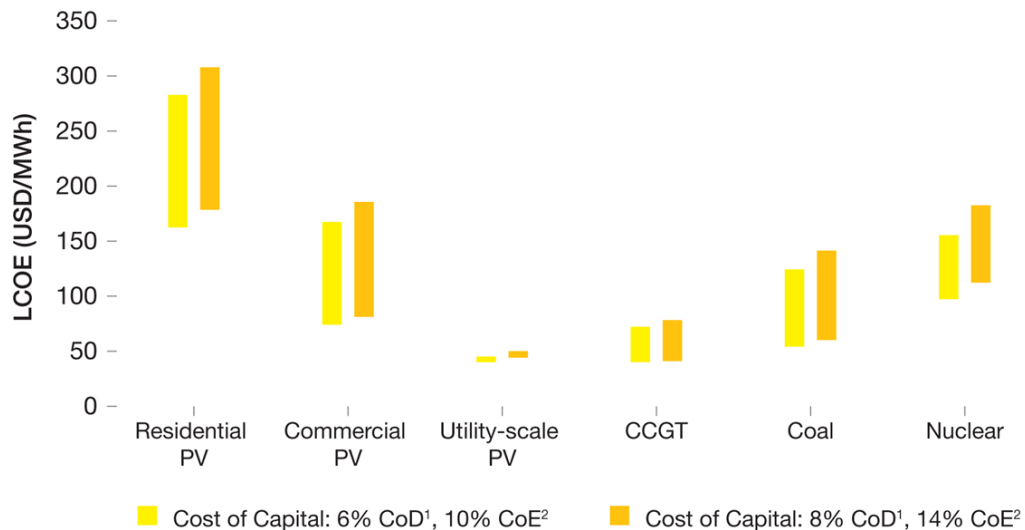
**Aurélie Beauvais**

**Policy Director, SolarPower Europe**

**AUCTIONS & PPA'S SHAPING  
THE FUTURE OF EUROPEAN  
SOLAR**

## > SOLAR A GLOBAL COST LEADER

### SOLAR ELECTRICITY GENERATION COST IN COMPARISON WITH OTHER POWER SOURCES



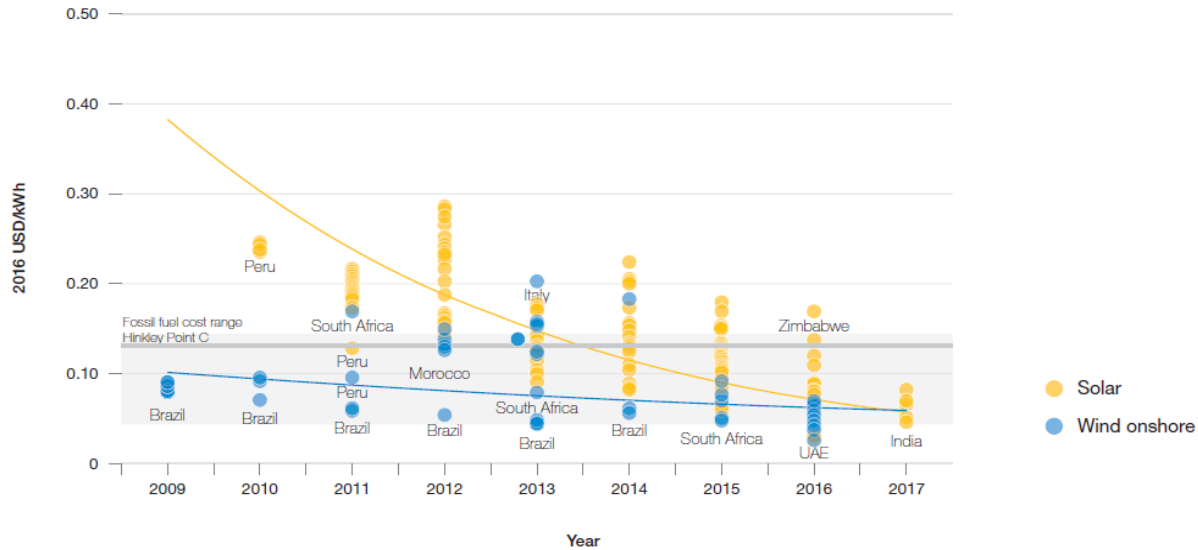
Footnote 1: CoD = Cost of Debt. Footnote 2: CoE = Cost of Equity.  
Source: Lazard (2017)

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Cost leader: Solar power generation is increasingly cheaper than nuclear, coal and gas

## > SOLAR A GLOBAL COST LEADER

FIGURE 1 PPA PRICE OFFERS FOR SOLAR PV AND WIND ONSHORE POWER PLANTS IN DIFFERENT COUNTRIES



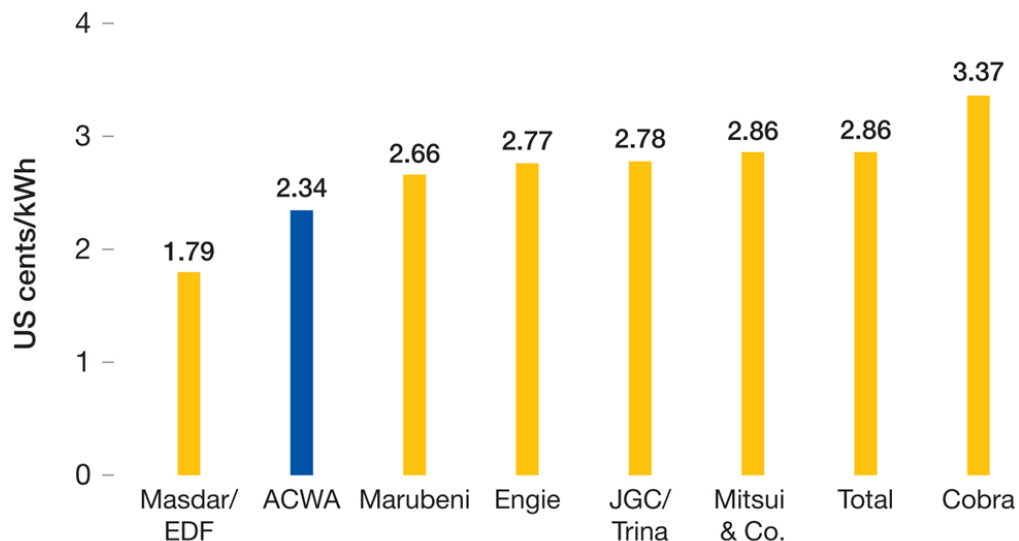
SOURCE: International Renewable Energy Agency (IRENA)

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Nearly all solar tenders awarded since 2016 are lower than the price guarantee the UK government signed for the Hinkley Point C nuclear power plant in 2016

## > SOLAR AUCTIONS : REACHING THE NEXT PRICE FRONTIERS

### TOP 8 TECHNICAL BIDS FOR 300 MW SAKAKA PV PROJECT IN SAUDI ARABIA

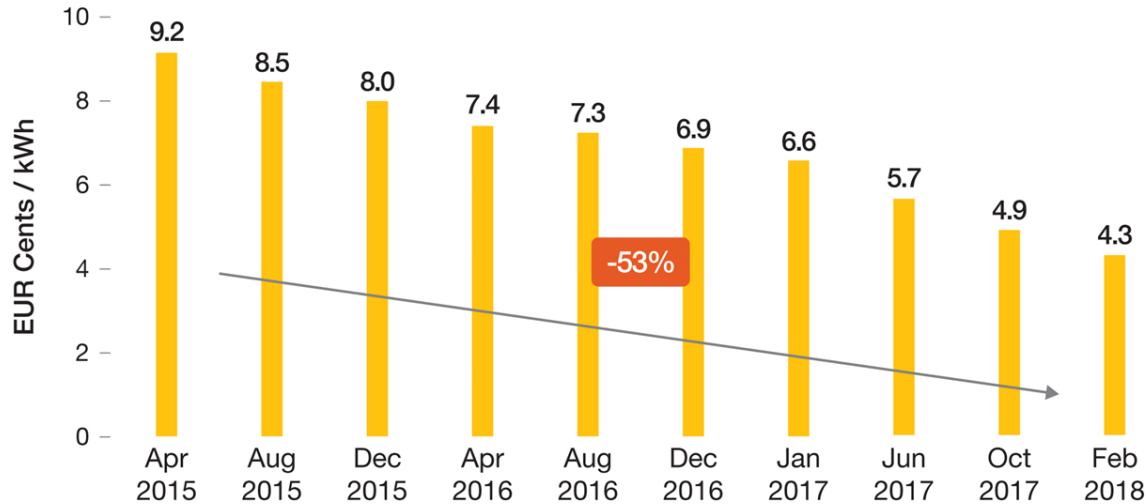


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While sub-3 US cents is now the new normal for solar under ideal conditions, the next frontier is already in sight: below 2 US cents.

## > SOLAR AUCTIONS : REACHING THE NEXT PRICE FRONTIERS

AVERAGE WINNING BID SOLAR POWER PRICES IN GERMAN TENDERS



Source: Lazard (2017)

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Even in less sunny areas like Germany, solar power costs quickly decrease towards 3 euro cents level in tenders

> **BRINGING SOLAR TO THE NEXT LEVEL: READY TO GO  
SUBSIDY FREE?**

**Anesco's subsidy-free solar  
receives national award**

New Economy Forum

**Solar Farms Without Subsidy Sprout  
From Gloomy Britain to Italy**

At least 15 projects in Europe are planned on the basis that government support won't be needed to profit

Clark Clayhill development, which was the first in the UK to be created without government subsidy, won the Solar PV Project of the Year as part of the 2018 Efficiency Awards.

**Everwood €300 million fund for  
unsubsidized solar in Spain**

Chinese government offers glimpse of path to post-subsidy solar

Unlike its three previous funds, which focused on plants in operation, the Spanish asset manager will raise €300 million for the construction of plants without subsidies.



> **BRINGING SOLAR TO THE NEXT LEVEL: READY TO GO  
SUBSIDY FREE?**

- ✓ 15 PV “subsidy free” projects ongoing in Europe (BNEF)
  - ✗ Level playing field with other technologies
  - ✗ Long-term visibility on market revenues
  - ✗ Financing schemes

Visibility





## > BRINGING SOLAR TO THE NEXT LEVEL: READY TO GO SUBSIDY FREE?

THE NEED TO REDISTRIBUTE THE SOCIO-ECONOMICAL BENEFITS OF THE SOLAR REVOLUTION

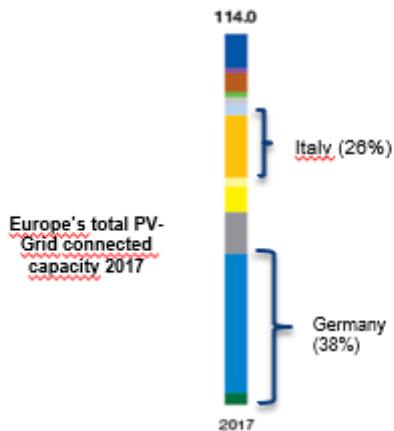
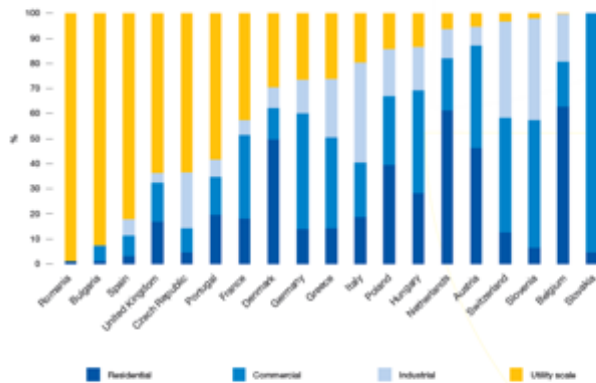


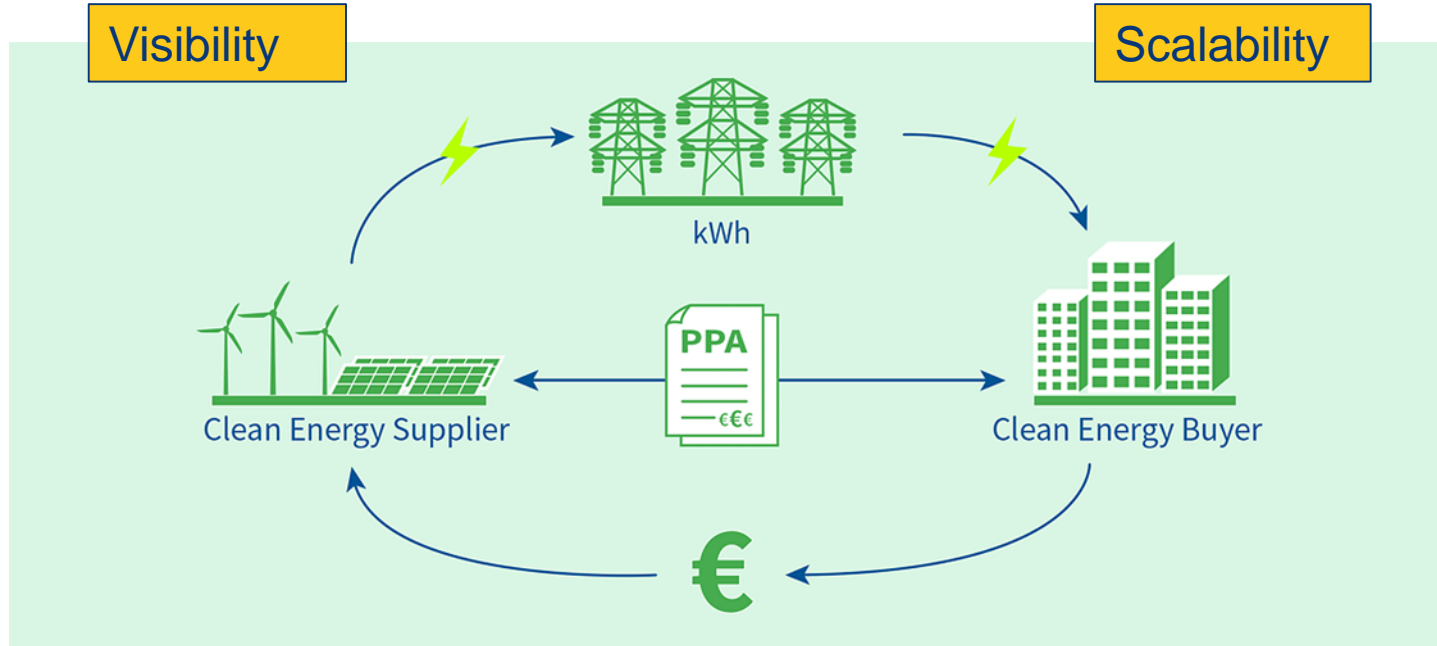
FIGURE 27 EUROPEAN SOLAR PV TOTAL CAPACITY UNTIL 2017 FOR SELECTED COUNTRIES



For European Solar companies to thrive, consolidating the European Market will be crucial

Scalability

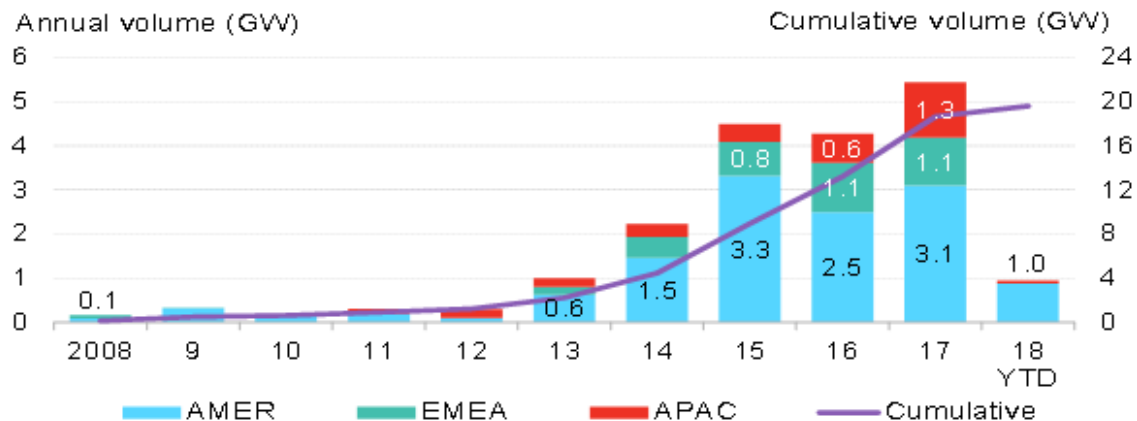
## > BRINGING SOLAR TO THE NEXT LEVEL: READY TO GO SUBSIDY FREE?



The European platform for corporate renewable energy sourcing representing clean energy buyers and suppliers

> CORPORATE PPA'S: A PROMISING BUSINESS MODEL

## Global corporate PPA volumes by region



Source: Bloomberg New Energy Finance. Note: On-site PPAs not included. APAC number is an estimate. Pre-market reform Mexico PPAs are not included. These figures are subject to change and may be updated as more information is made available.

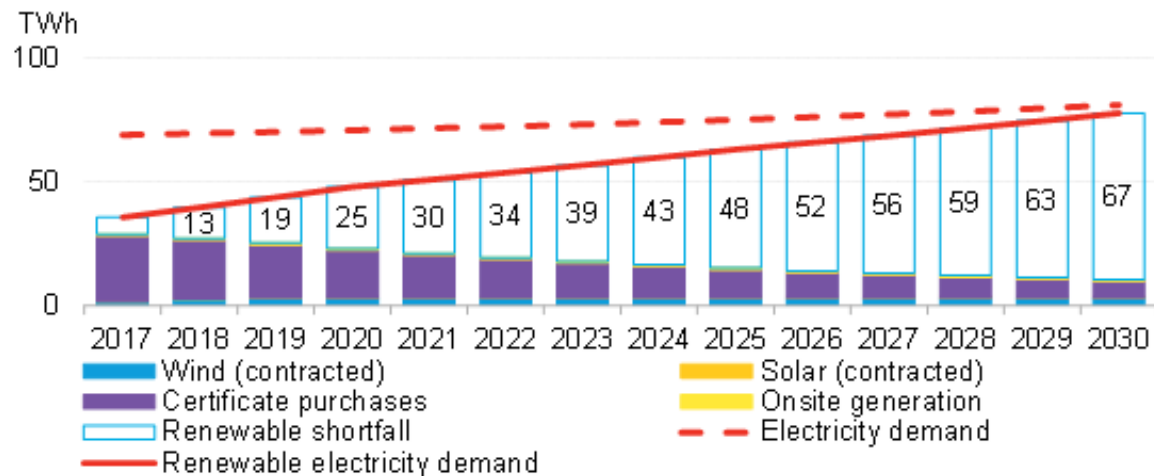
Official data  
partner:

**Bloomberg**  
NEW ENERGY FINANCE

> A STRONG EUROPEAN POTENTIAL

## Europe-domiciled RE100 supply-demand fundamentals

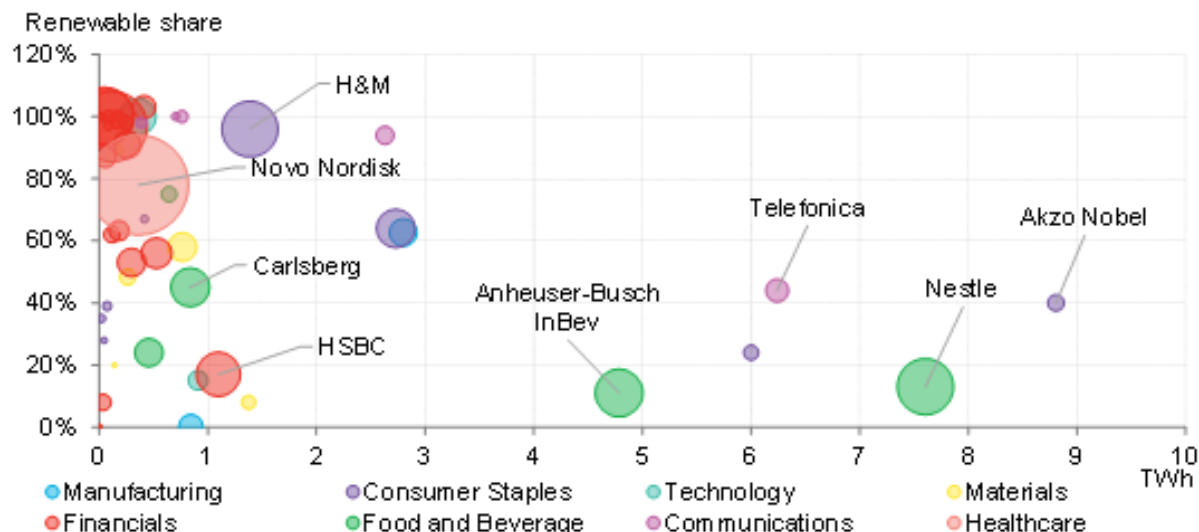
These companies will have a Belgium-sized renewable electricity shortfall by 2030



Source: Bloomberg New Energy Finance, Bloomberg Terminal, The Climate Group. Note: Certificates includes utility contracts and unbundled guarantees of origin. Certificates assumed to step down 10% each year, while contracted solar, wind and onsite generation remain steady through 2030.

## > WITH INCREASING ENGAGEMENT OF VARIOUS CORPORATE PLAYERS

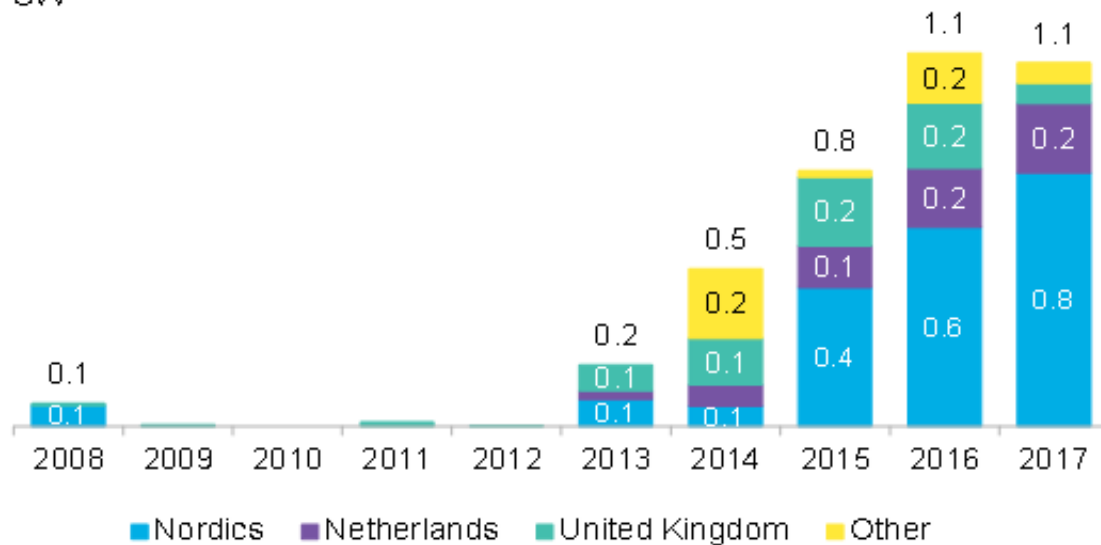
European-domiciled RE100 share of electricity demand supplied by renewables, by industry classification (bubble color) and market capitalization (bubble size), 2016



Source: Bloomberg New Energy Finance, Bloomberg Terminal, The Climate Group Note: Renewables share includes unbundled certificate purchasing and utility contracts.

## > CHALLENGE 1: A DIVIDED PICTURE ACCROSS MEMBER STATES

GW

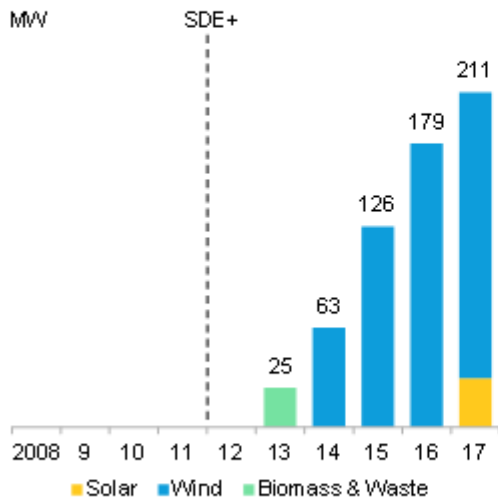


Source: Bloomberg New Energy Finance. Note: Onsite PPAs not included.

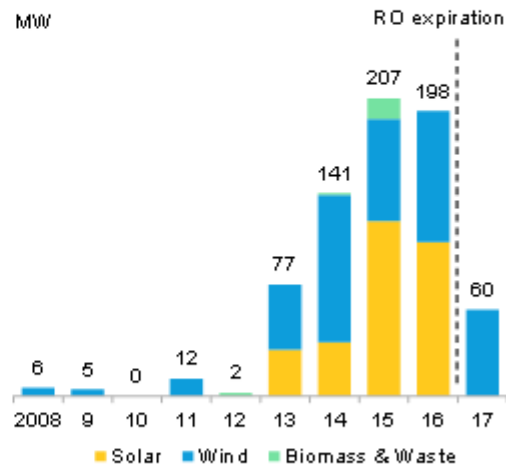
> CHALLENGE 2: REGULATION REMAINS THE MAIN DRIVER

## What has catalysed corporate PPA activity in Europe?

Netherlands corporate PPA volumes, by technology



United Kingdom corporate PPA volumes, by technology



Source: Bloomberg New Energy Finance. Note: Onsite PPAs not included.

> **CHALLENGE 2: REGULATION REMAINS THE MAIN DRIVER**

- X Long term visibility over EU Market prices
- X Get out of the « Legal grey area »
- X Develop a European wide certificate scheme
- X Find the right business model (14 business models in EU)
- X Attract smaller & medium consumers





## > ANSWER 1: THE RE-SOURCE PLATFORM



# RE-Source

European platform for corporate  
renewable energy sourcing

Brought to you by:



wbcscd



## > RE-Source Platform objectives

1. **Engage with EU and national decision makers** to improve legislation relevant to corporate renewable energy sourcing. The Platform will coordinate and align advocacy strategies. It will also define and implement possible common outreach initiatives at EU level and in member states with high potential
2. **Raise awareness and educate** all stakeholders on the advantages of sourcing renewable energy and the huge untapped opportunity
3. **Create knowledge and disseminate information** on renewable energy sourcing (Taskforces on contract standardization, financing, business models)
4. **Provide business opportunities**: connecting renewable energy buyers and sellers
5. **Deliver an annual “RE-Source” experience**: bring together key players from the energy sector, corporates and governments at the annual RE-Source event





## RE-Source 2018

European platform for corporate  
renewable energy sourcing

20-21 November  
Amsterdam



### Connecting renewable energy buyers and sellers

#### TOPICS INCLUDE:

- Corporate sourcing strategies and business models
- Markets and regulation
- Demand growth and diversification: How to turn 50 corporates into 50,000?
- Innovation
- Standardisation
- Additionality
- Cities and local authorities

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**THANK YOU !**

