

ACER

Agency for the Cooperation
of Energy Regulators



Markets fit for renewables – what is needed?

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Market fit for renewables

- What is needed for Day-Ahead and Intraday markets to be ready for integration of renewables?
 - The **flexibility** challenge
 - Implementation of the Target Model

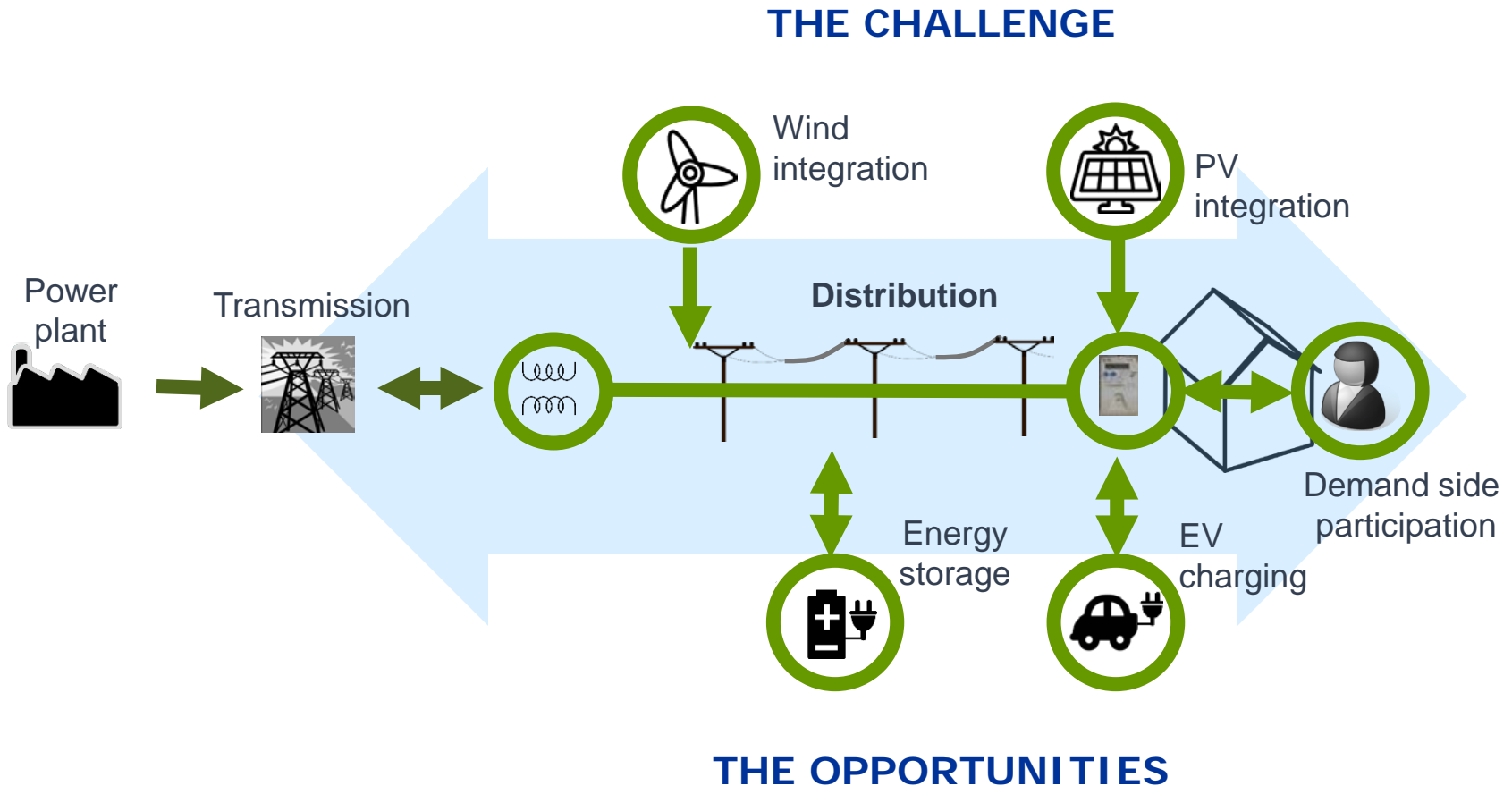
**Moving towards a
Low-Carbon Society**

**Increased penetration of non-programmable
Renewable Sources**

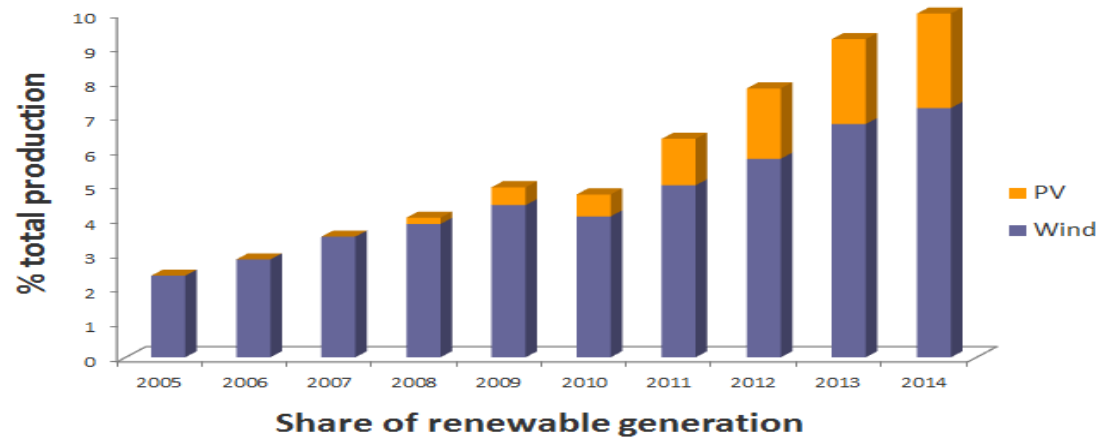
**Adequacy Concerns and greater need for
Flexibility of the Electricity System**

Flexibility and Adequacy Markets in Electricity

Market and system paradigm changes from centralised to decentralised



**Increased
RES Penetration**



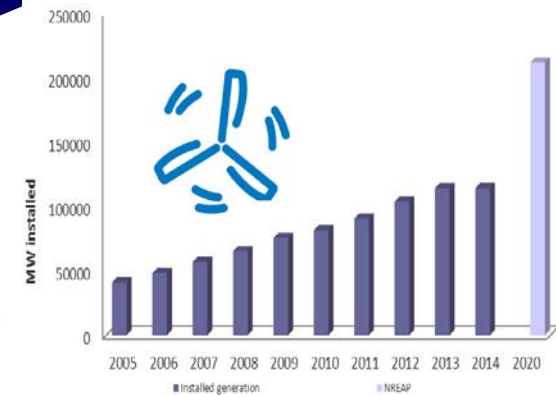
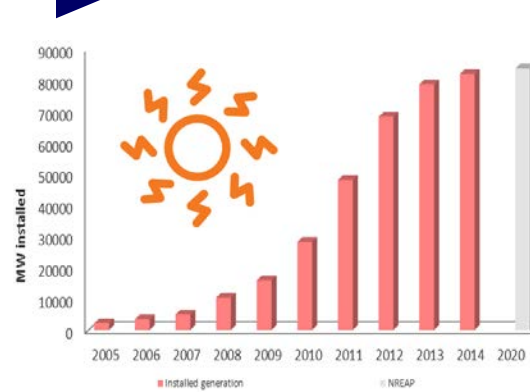
Expected share of RES in electricity generation

2020

34%

2030

≈ 50%



Most of the new
RES-based generation
capacity is/will be
connected to
distribution grids.

... to integrate renewables into DA and ID markets

- Implement the target model which is designed to enable RES integration
- RES generators should become balance responsible (with impacts to DA, ID and BAL scale)
- Imbalance prices should reflect all balancing costs
- Level of cooperation and coordination among TSOs and DSOs should increase

Incentives in the future model (target)

Today	Target model
RES generators are NOT responsible for imbalances	Making RES balance responsible will reduce balancing needs/costs
Costs for reserves, and in some cases balancing energy, are socialised (no market)	Cost reflective imbalance charges will reduce balancing needs/costs.
Hourly products and imbalance settlement period (ISP)	Shorter (15') products and ISP will reward flexibility in ID and BAL markets

Experience so far: ongoing pilot project XBID



**Thank you
for your attention**

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Electricity Target Models

... for forward, day-ahead, intraday and balancing timeframe

**Capacity
Calculation**

OPTIMAL BIDDING ZONES + FLOW-BASED
to optimise the use of infrastructure

Forward

**SINGLE EU RULES AND ALLOCATION
PLATFORM** to allocate transmission rights

Day-Ahead

**SINGLE EU (AUCTION BASED) PRICE
COUPLING** to optimise XB capacities

Intraday

**SINGLE EU (CONTINUOUS) PRICE
COUPLING** with the possibility of auctions

Balancing

SINGLE EU COMMON MERIT ORDER LIST
for all balancing energy products

Electricity Target Models Implementation Status

Capacity Calculation

- Pilot review of bidding zone
- CWE Flow Based went live in May 2015
- CEE Flow Based delayed due to loop flows

Forward

- Single auction rules approval ongoing
- Merger of CASC and CAO (75% of the EU borders with LT TRs)

Day-Ahead

- Single Price Coupling covering 19 Member States since Feb 2015
- 4MMC Price Coupling (CZ, HU, SK, RO)

Intraday

- Significant delay in the development of single intraday platform
- Signature of vendor contract in June 2015

Balancing

- Harmonisation of products and rules
- Development of regions (CoBAs)
- Several pilot projects ongoing