



European  
Commission



# Energy market integration in the EU

23rd National Energy Conference

Athens, 22-23 November 2018

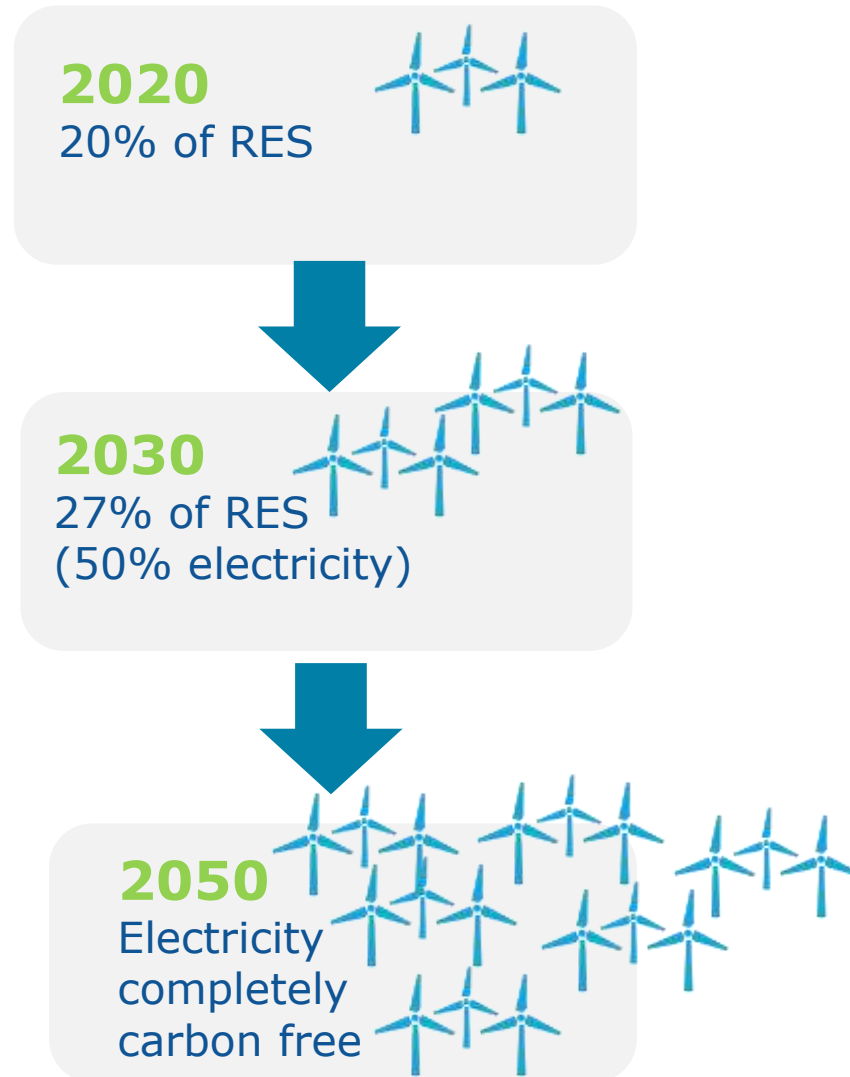


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1. **Why** we need an integrated EU market? - General objectives
  2. **How** do we get there? - Regulatory framework
  3. **Where** are we now?

# 1. General objectives

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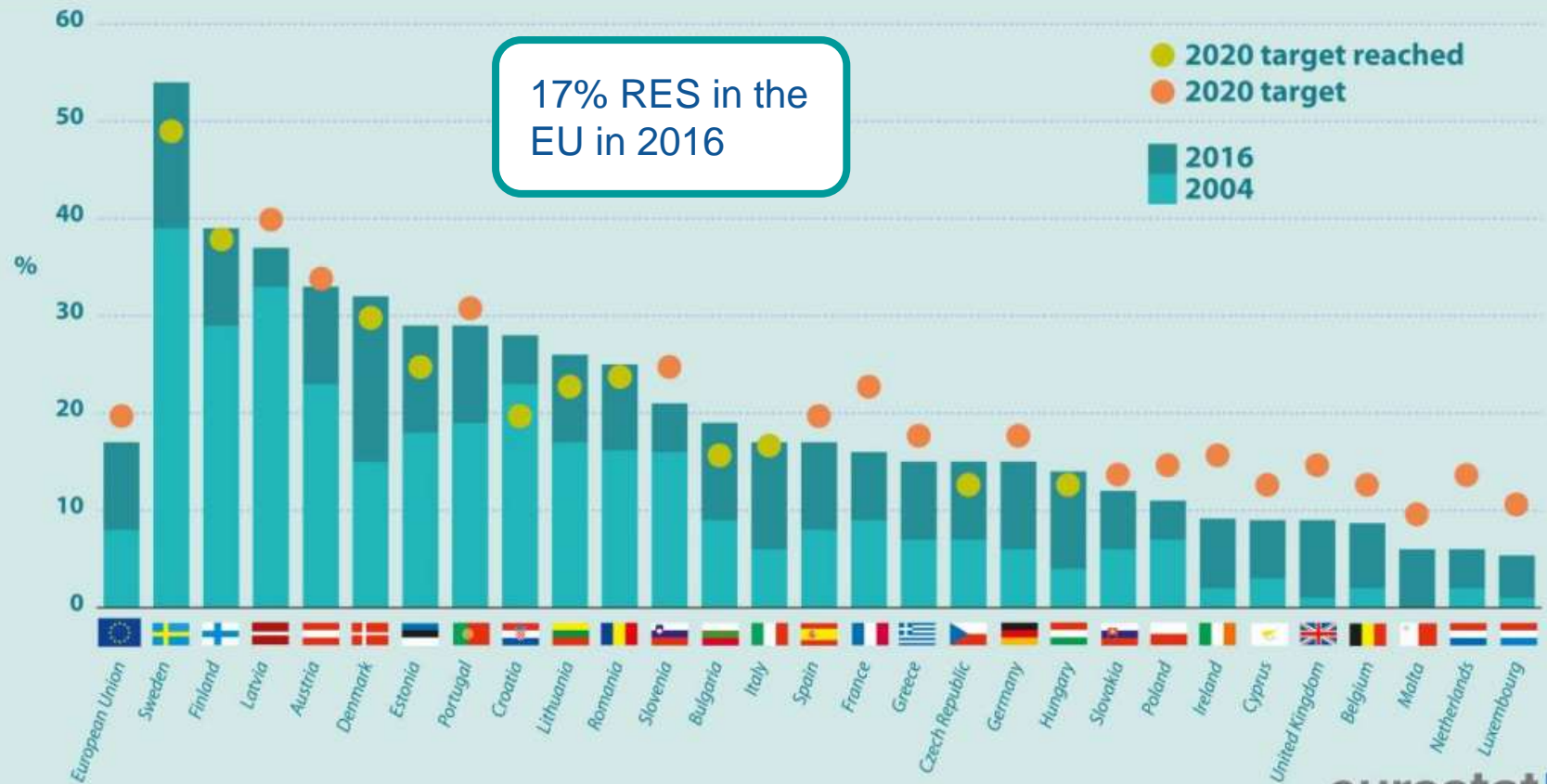
## 1. Sustainable



# 1. General objectives

## Share of energy from renewable sources in the EU Member States

(in % of gross final energy consumption)



# 1. General objectives

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## 2. Secure

*"This amount of wind generation does, however, pose an increased risk to the security and stability of the power system which the transmission system operator feels exceeds the level normally likely to be accepted by a prudent system operator."*

Kieran O'Brien, Managing Director of ESB National Grid, Ireland, 1 December 2003 – Ireland had 2% of wind power

Ireland, 2003, 2% wind power in annual generation

2014: 20% wind power

2020 objective: 37 % wind power

# 1. General objectives

## 3. Competitive

- Level playing field + strong short-term markets + demand response = €9.5 billion/year of cost savings by 2030;
- Coordinated approach to resource adequacy = capacity savings of ~80 GW (4.8 b€/year of investments!)



expensive



cheap

# 2. How do we get there? Regulatory framework

## THE NETWORK CODES AND GUIDELINES (THIRD ENERGY PACKAGE)

### Market Guidelines

1. Capacity Allocation and Congestion Management (CACM)
2. Forward Capacity Allocation
3. Electricity Balancing (EB)

### System Operation Guidelines

1. System operations
2. Emergency and restoration

### Connection

1. High Voltage Direct Current Connections (HVDC)
2. Requirements for Generators (RfG)
3. Demand Connection (DC)

## THE CLEAN ENERGY PACKAGE



### Energy Union Governance



### Energy Efficiency

(Energy Efficiency Directive, Energy Performance of Buildings Directive)



### Renewables

(Revised Renewable Energy Directive)



### New Electricity Market Design

(including Risk Preparedness)

# 2. How do we get there? Regulatory framework

## CLEAN ENERGY PACKAGE – NEW ELECTRICITY MARKET DESIGN

### Electricity Regulation (RECAST)

- Contains majority of new wholesale market rules

### Electricity Directive (RECAST)

- Contains majority of new retail market rules

### ACER Regulation (RECAST)

- ACER tasks and procedures

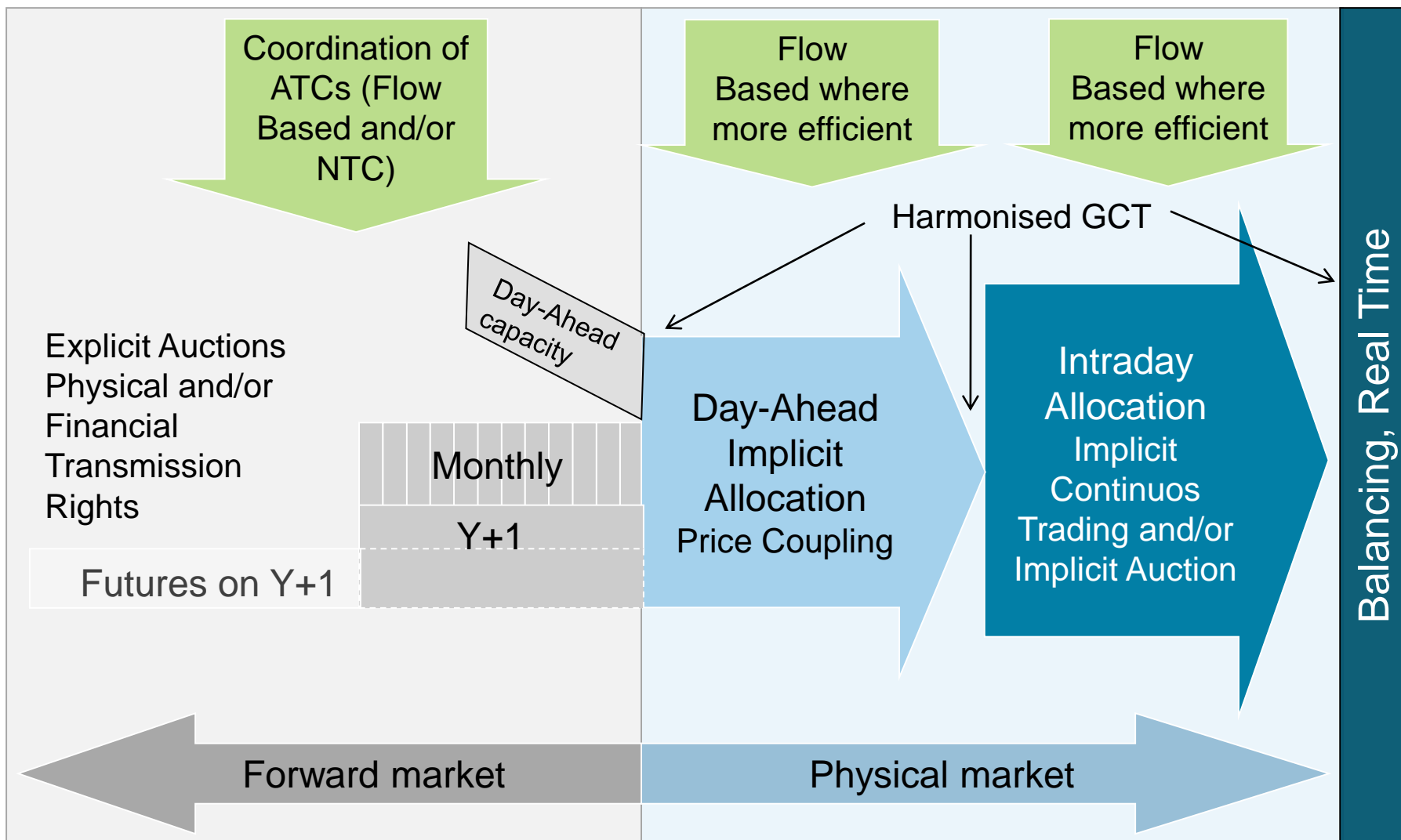
### Regulation on Risk preparedness (NEW)

- Member States put in place appropriate tools to prevent, prepare for and manage electricity crisis situations



# 3. Where are we now?

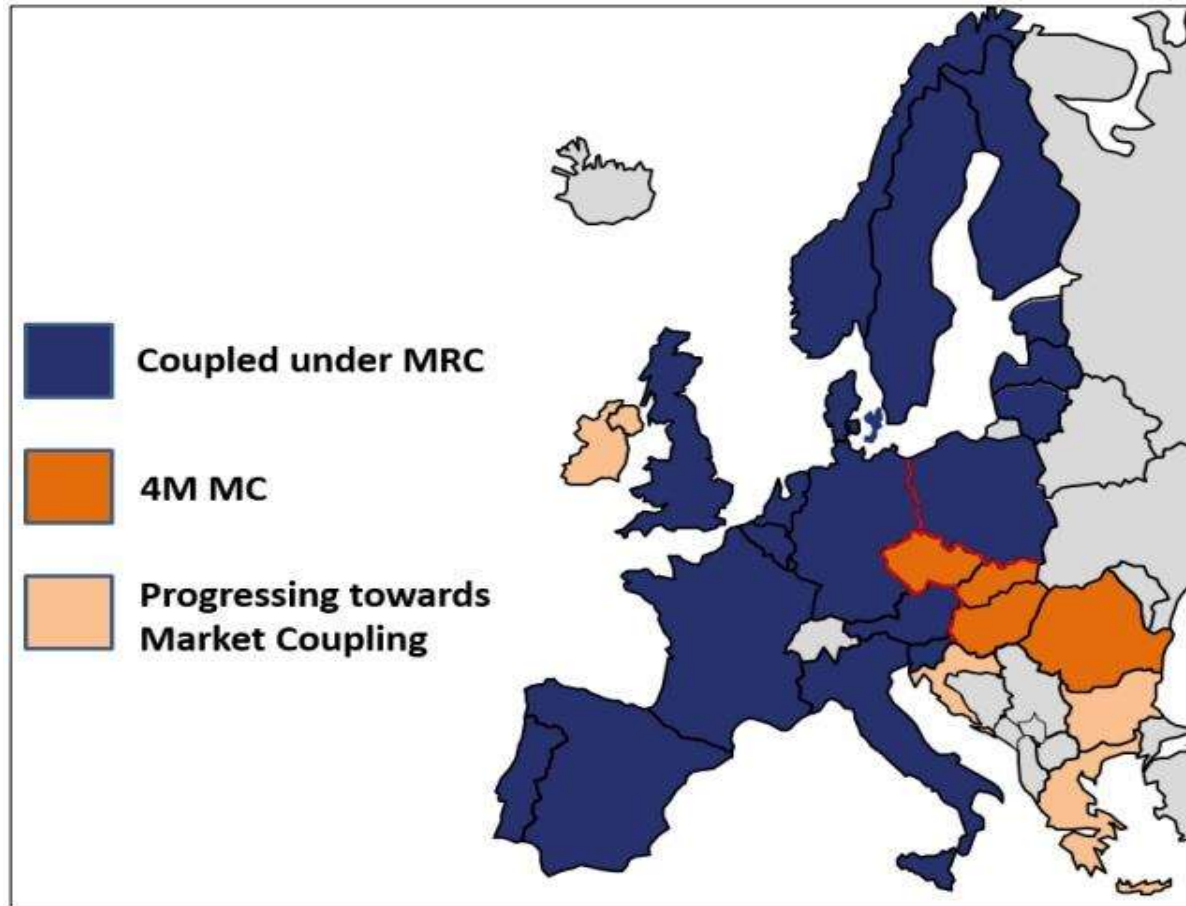
## Target model



# 3. Where are we now?

## THE NETWORK CODES AND GUIDELINES

Day ahead market – price coupling of regions (PCR)



# 3. Where are we now?

## THE NETWORK CODES AND GUIDELINES

Intraday market – XBID project – Go-live 12<sup>th</sup> June



# 3. Where are we now?

## THE NETWORK CODES AND GUIDELINES

### Balancing markets

#### TERRE

Replacement reserves (RR)



- Members
- Observers
- Participants in RR IF not yet TERRE members
- Potential interest

#### PICASSO

Automatic Frequency Restoration Reserve (aFRR)



- Member
- Observer

#### MARI

Manual Frequency Restoration Reserve (mFRR)



- Members
- Observers

# 3. Where are we now?

## CLEAN ENERGY PACKAGE – NEW ELECTRICITY MARKET DESIGN

Political agreement expected by the end of the year

### MARKETS FIT FOR PURPOSE

#### Strengthened short-term markets

Increase **cross-border trading opportunities** over shorter timeframes (intraday and balancing markets)

**Reward flexibility** for generation, demand-response and storage

Allow **prices to show real value** of electricity in terms of time and location (scarcity pricing)

#### Competitive retail markets

**Flexible network** management

**Regulated prices** phased out

**Fair market access** for new market players such as new service providers

Distribution operators as neutral but **active market facilitators**

### New Market Design

#### Level-playing field among sources

Rules on **priority access** and dispatch

**Curtailement** rules

**Remuneration** on equal terms on market principles

Extended **balancing** responsibilities

#### Regional cooperation

**Regional Operation Centres (TSOs)**

Common rules on **crisis prevention**

European framework for system adequacy and capacity remuneration

New tasks for **ACER/EU DSO**

# 3. Where are we now?

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## Cost-effective transition

- **Make the market the prime generator of investments**
  - Well-functioning markets can deliver the necessary (flexible) investments:
    - Overcapacity is gradually reduced (mainly by exit of highly emitting plants)
    - Scarcity pricing allows for full cost recovery of most technologies
    - Flexible assets (CCGTs) remain profitable on average
    - RES E investments gradually become more and more market based



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**Thank you for your attention!**

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