

# *The European Power Sector in Transition*

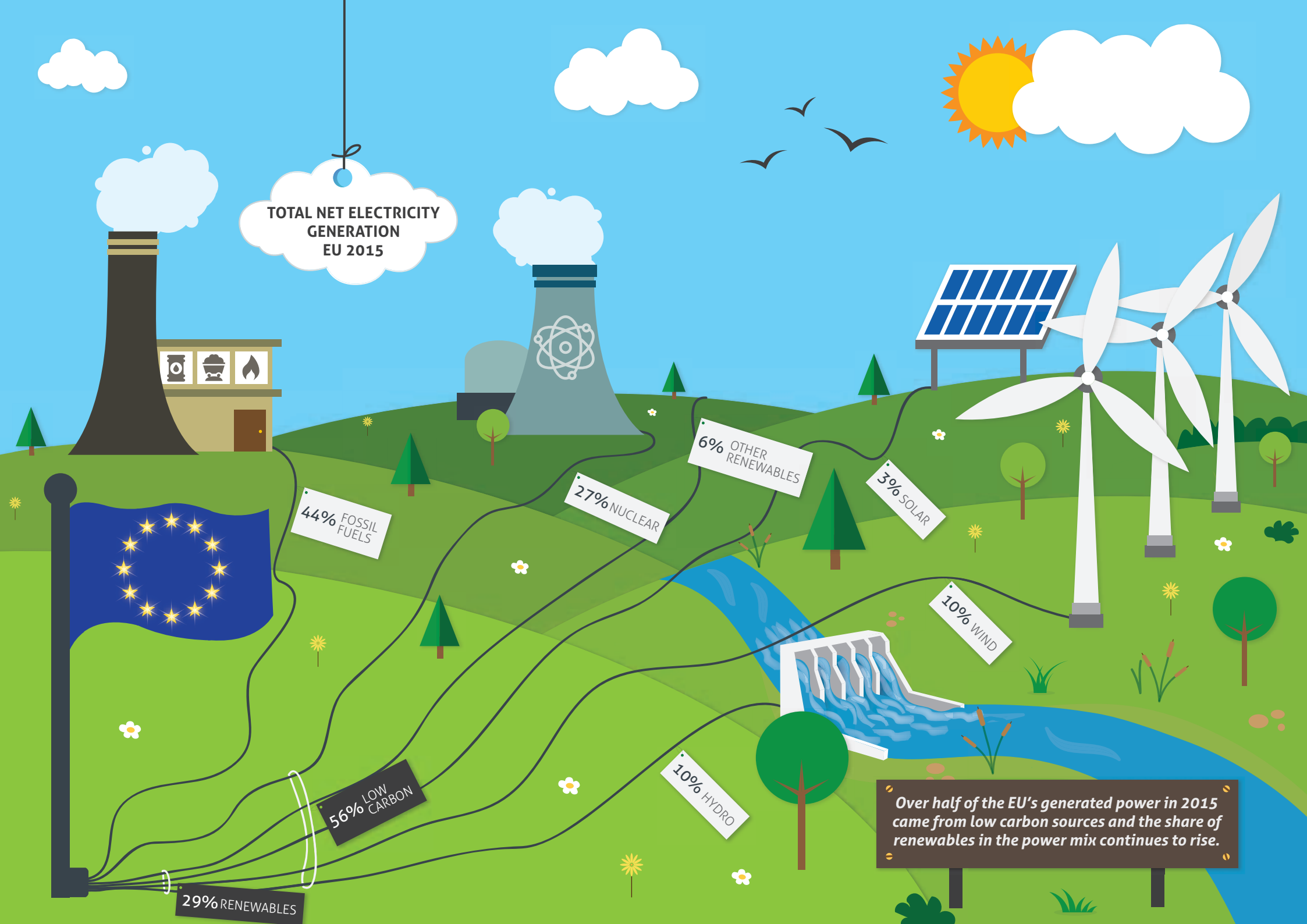


Facts & Figures

*eurelectric*  
ELECTRICITY FOR EUROPE

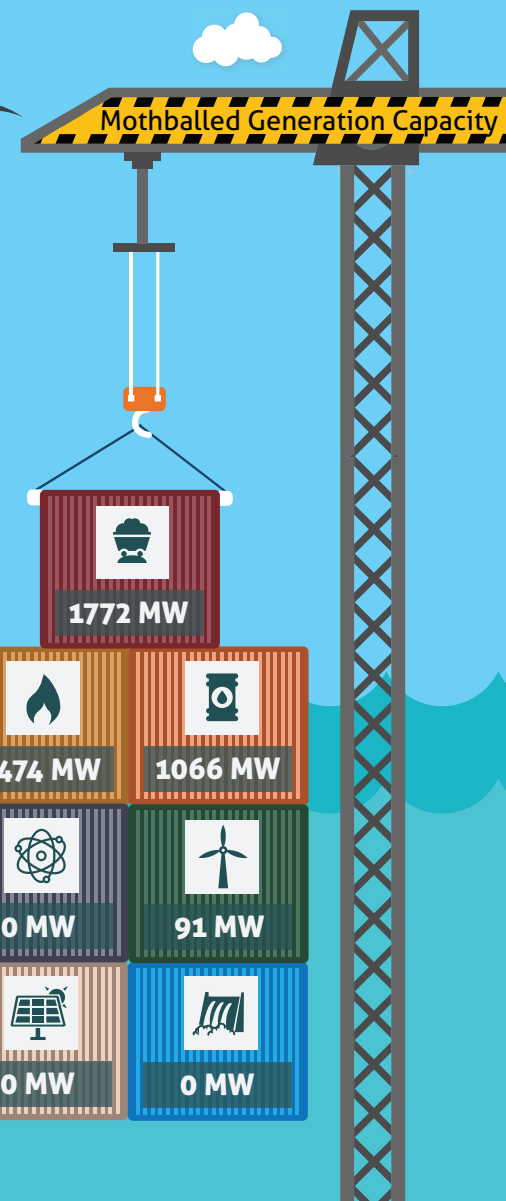
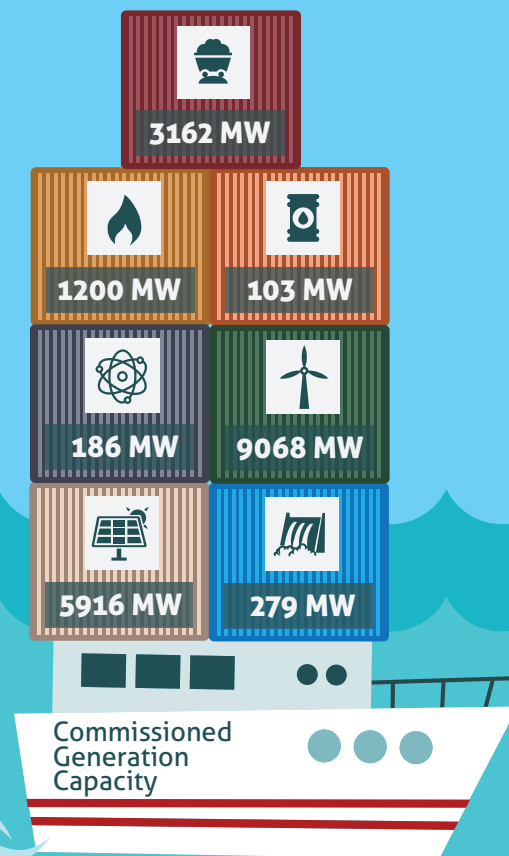
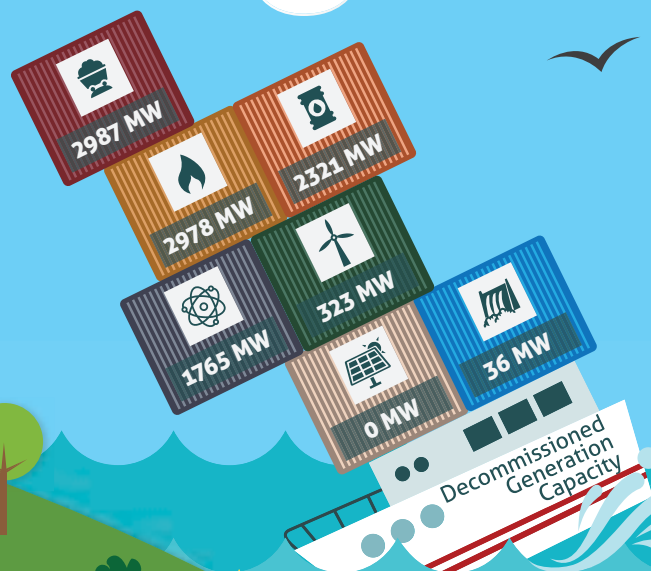
December 2016

TOTAL NET ELECTRICITY  
GENERATION  
EU 2015



Over half of the EU's generated power in 2015 came from low carbon sources and the share of renewables in the power mix continues to rise.

# GENERATION CAPACITY DEVELOPMENT 2015 IN EUROPE



- Coal + Lignite
- Gas
- Oil + Other fossil sources
- Nuclear
- Wind
- Solar
- Hydro

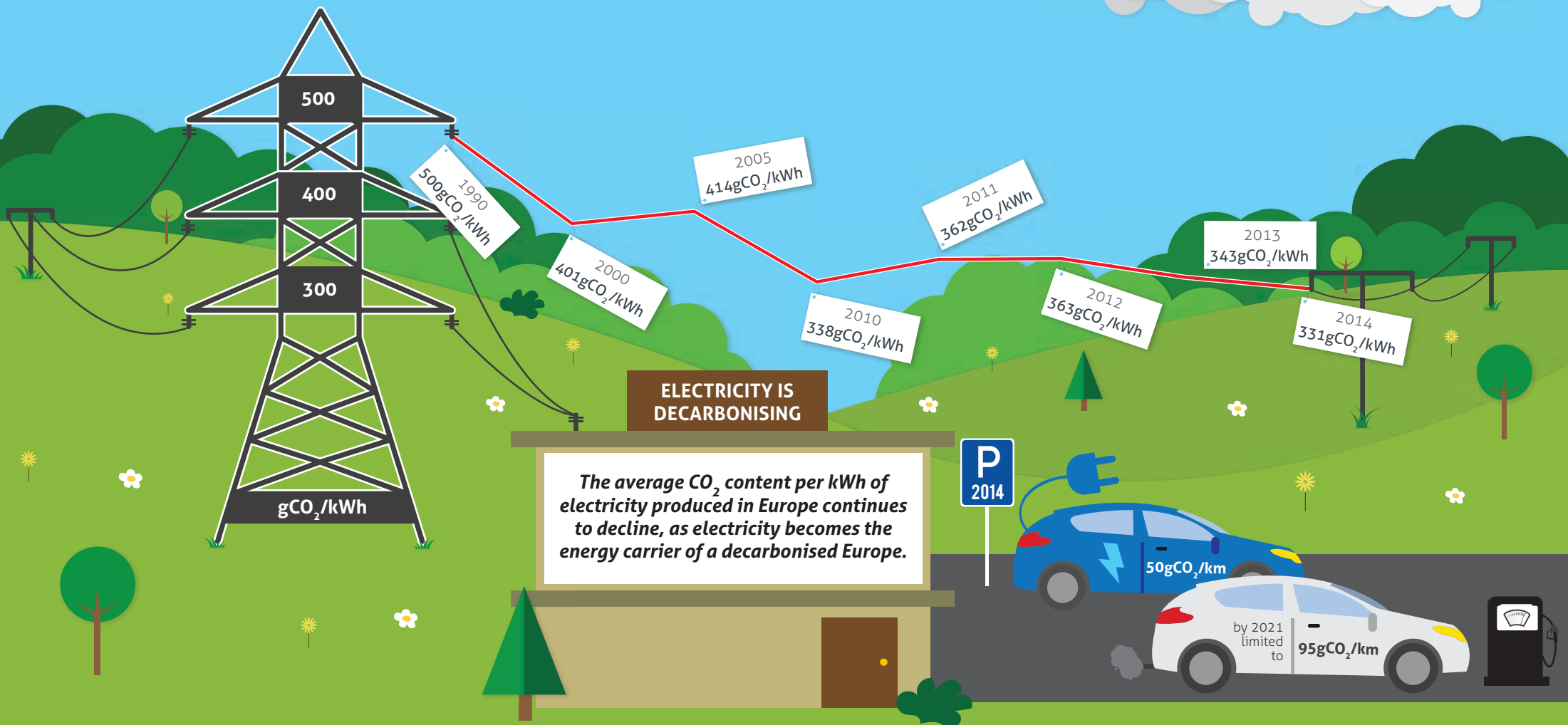
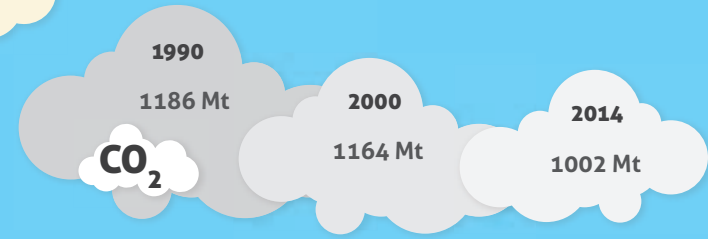
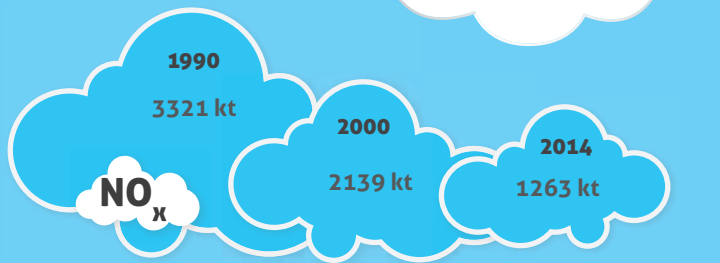
Capacities across conventional generation assets are shrinking, gas capacities are being mothballed due to difficult market conditions while renewables, especially wind and solar, are continuing their surge.

In order to meet the challenges brought about by decentralisation and intermittency, and to ensure security of supply, the market must adequately value energy, flexibility, and capacity.

# KEY EMISSIONS ACROSS THE EUROPEAN POWER SECTOR\*

\* EURELECTRIC + Eurostat

The European power sector continues its progressive trajectory in reducing key air pollutants and carbon dioxide emissions.



## RENEWABLE GENERATION SHARES ACROSS EUROPE

Renewables coverage of national electricity demand

365%  
05/12/15

32%  
06/07/15

102%  
28/12/15

19%  
04/03/15

January

February

July

December

### RENEWABLE SUPPLY PEAKS

Renewable generation technologies are able to cover national demand to varying degrees. However, peak generation periods are not always in line with national demand peaks. System variations and variable renewable generation is best addressed through a well-functioning internal energy market.

Renewable technologies deliver increasing shares of Europe's electricity output.

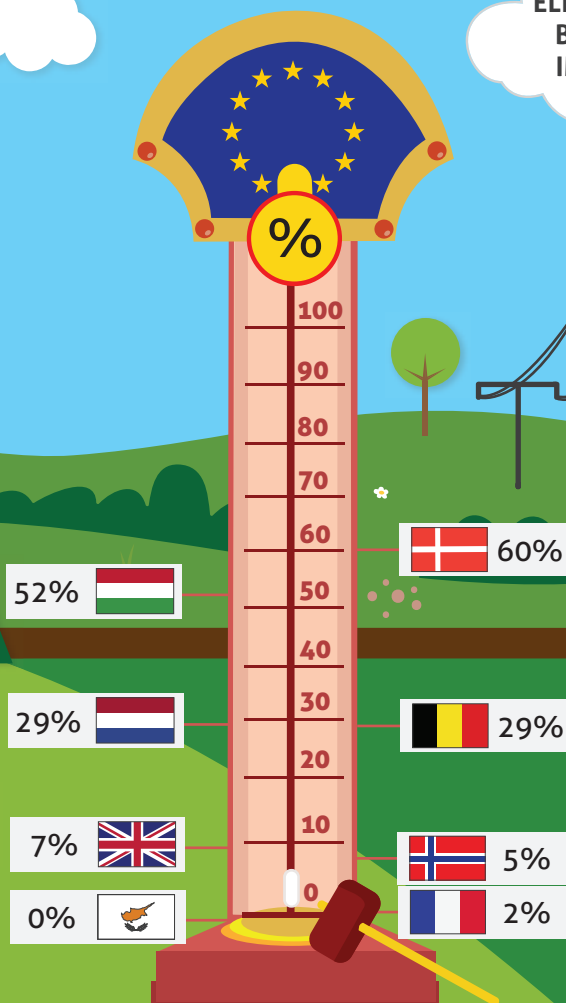
2010 4.0%  
2015 8.6%

2010 10.8%

2015 15.5%

0.7% 2010  
2.9% 2015

# ELECTRICITY TRADE BALANCE 2015 - IMPORTS/TOTAL DEMAND



European countries already meet national power demands through their European neighbours. An effective internal energy market is essential to ensure the lights stay on.

# ELECTRIFICATION OF EUROPEAN ENERGY DEMAND\*

\* Eurostat

2005	20.1%	22.8%	9.8%
2008	20.9%	21.9%	8.3%
2012	21.7%	21.2%	8.0%
2014	21.9%	20.9%	7.5%

PETROL

Whilst the share of low carbon generation continues to increase, the share of electricity across EU-wide electricity demand also continues to rise.

Whilst wholesale costs have decreased and network costs have remained relatively stable, the proportion of policy costs and taxes in the consumer electricity bill have increased by 47% between 2008 and 2014.

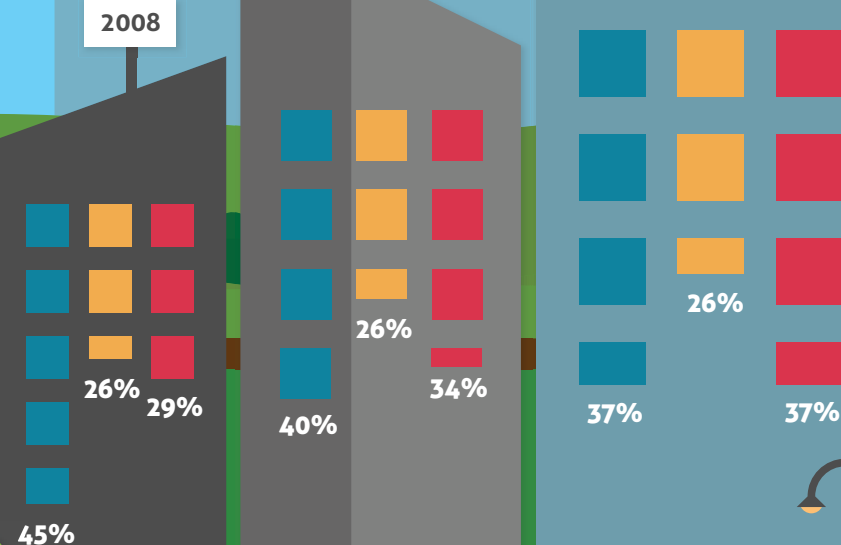
## CONSUMER PRICES IN EUROPE\*

\*ACER

## 2014 Bill-dings

2012

2008



## THE TRUE REASON FOR RISING CONSUMER BILLS

Electricity  
Distribution & Transmission  
Policy Costs & Taxes

Governments in 14 EU Member States interfere in the retail market by regulating energy prices.

Mr. Regulator



The Union of the Electricity Industry - EURELECTRIC is the sector association which represents the common interests of the electricity industry at pan-European level, plus its affiliates and associates on several other continents. We currently have over 30 full members, representing the electricity industry in 32 European countries.

COMPANIES

3500

800 000  
EMPLOYEES

3 5 0 0

GENERATION

TWh/  
annum

DISTRIBUTION COMPANIES

2400

200 000 000  
CUSTOMERS



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Data in this publication is based on the latest available industry figures (2015) gathered from EURELECTRIC statistical experts and complemented by public information.

The data contained in this report covers EURELECTRIC member countries (referred to as Europe in this publication), namely Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland and the UK.

We would like to express our sincere gratitude to all contributing experts, in particular to country data experts.

Unless indicated otherwise, the data presented has been collected via the EURELECTRIC annual power statistics survey.

