



# The Electric Power System

**- Belgium -**



Belgian Power System



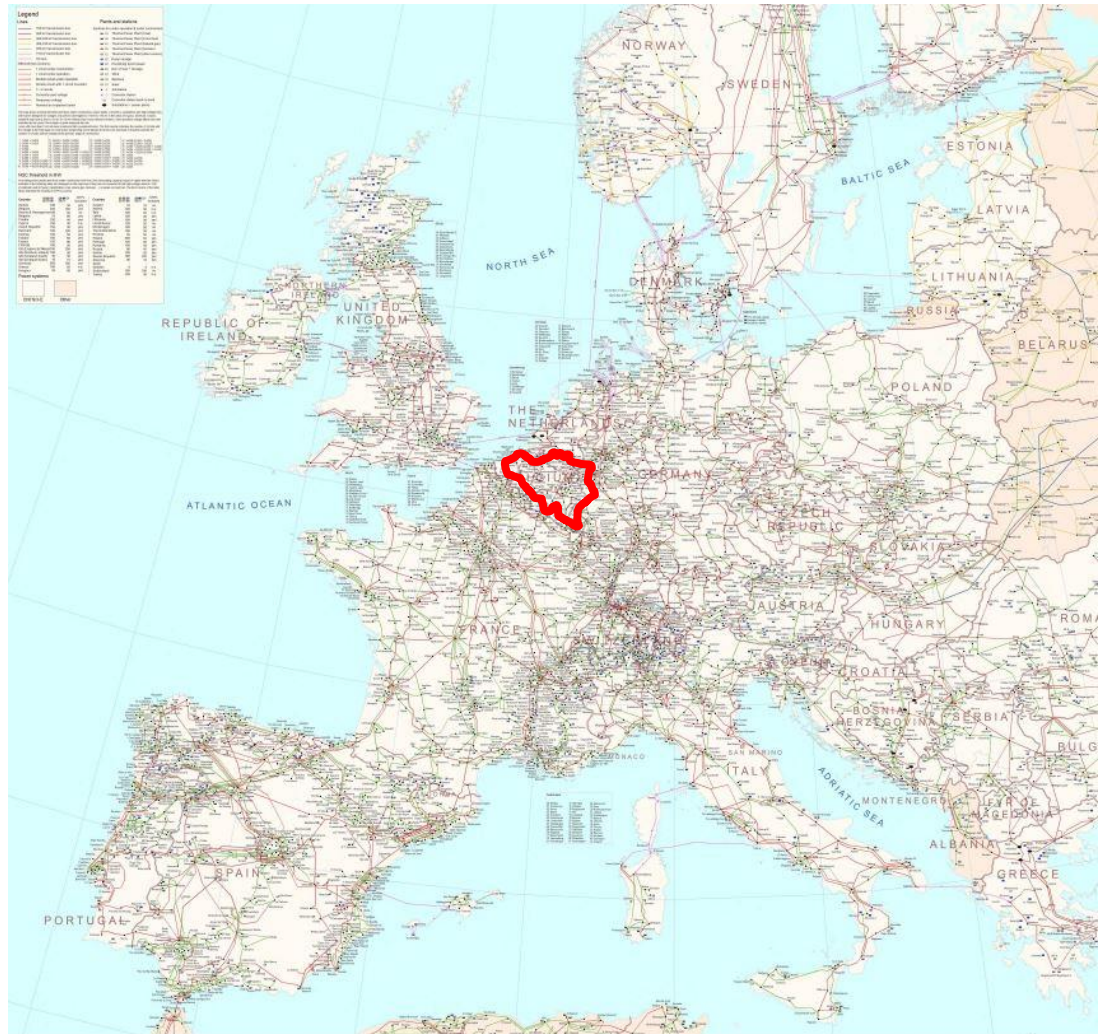
## Basic facts

- Area: 30 528km<sup>2</sup>
- Population: 11 190 845 (2014)
- 1 TSO
- 8 DSOs
- 5,4 Mio. consumers
- Peak load: approx. 14 GW



# Belgium in the European meshed grid

- Interconnectors to:
  - France;
  - Luxembourg;
  - The Netherlands
  - Germany (under development)
  - UK (under development)



Source :ENTSO-E



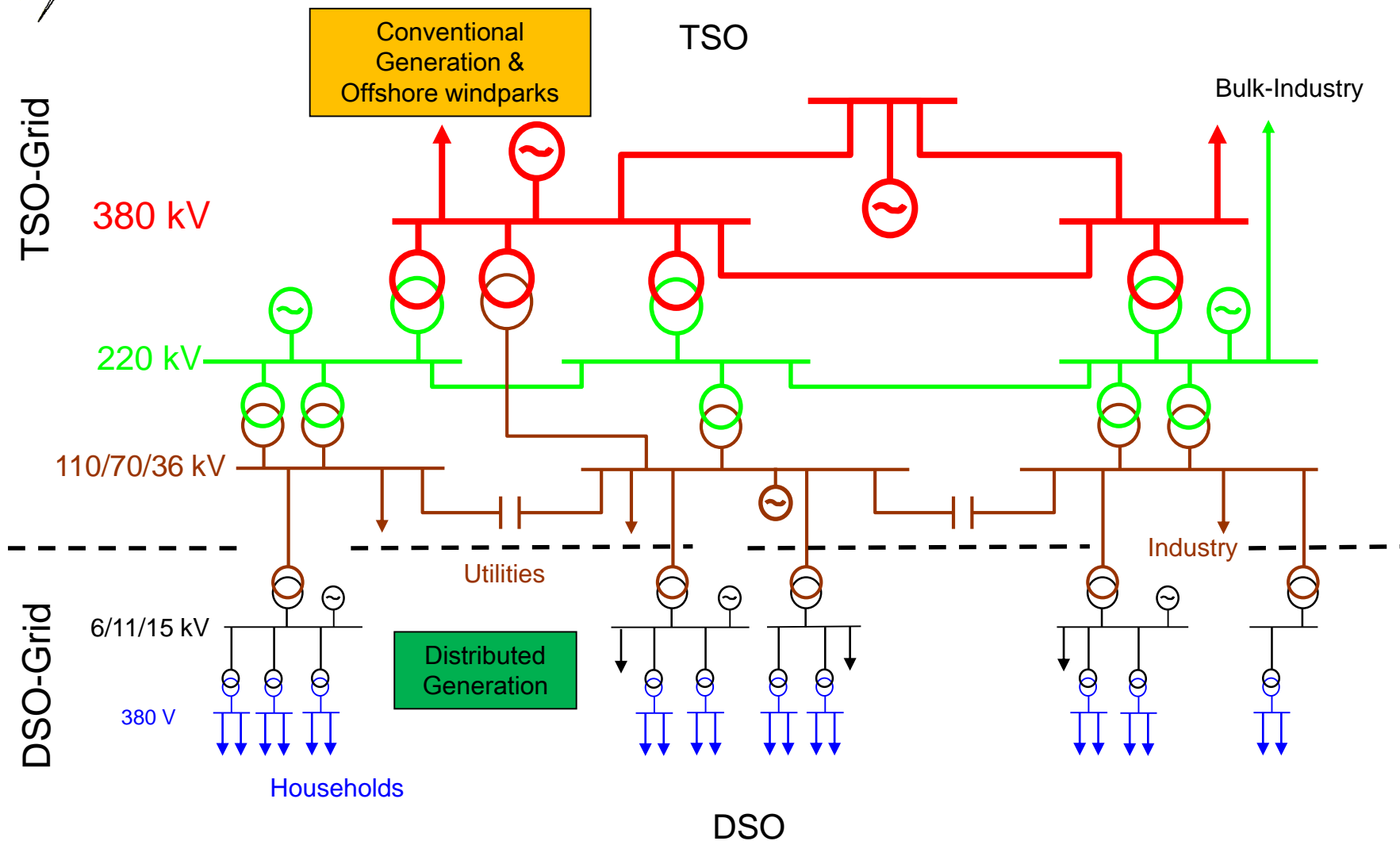
## Grid facts and characteristics

- The electricity grid in Belgium is sub-divided into transmission grids (very high and high voltage) and distribution grids (medium and low voltage)

	Voltage Level	Total length (approx.)	Responsibility
Very high voltage	220 and 380kV	1 200 km	TSO
High Voltage	36 kV to 150 kV	7 370 km	TSO
Medium Voltage	6 kV to 15 kV	75 290 km	DSO
Low Voltage	230 V or 400 V	128 120 km	DSO

Source : Synergrid

# Structure of electrical power supply



# Extra High Voltage Grid

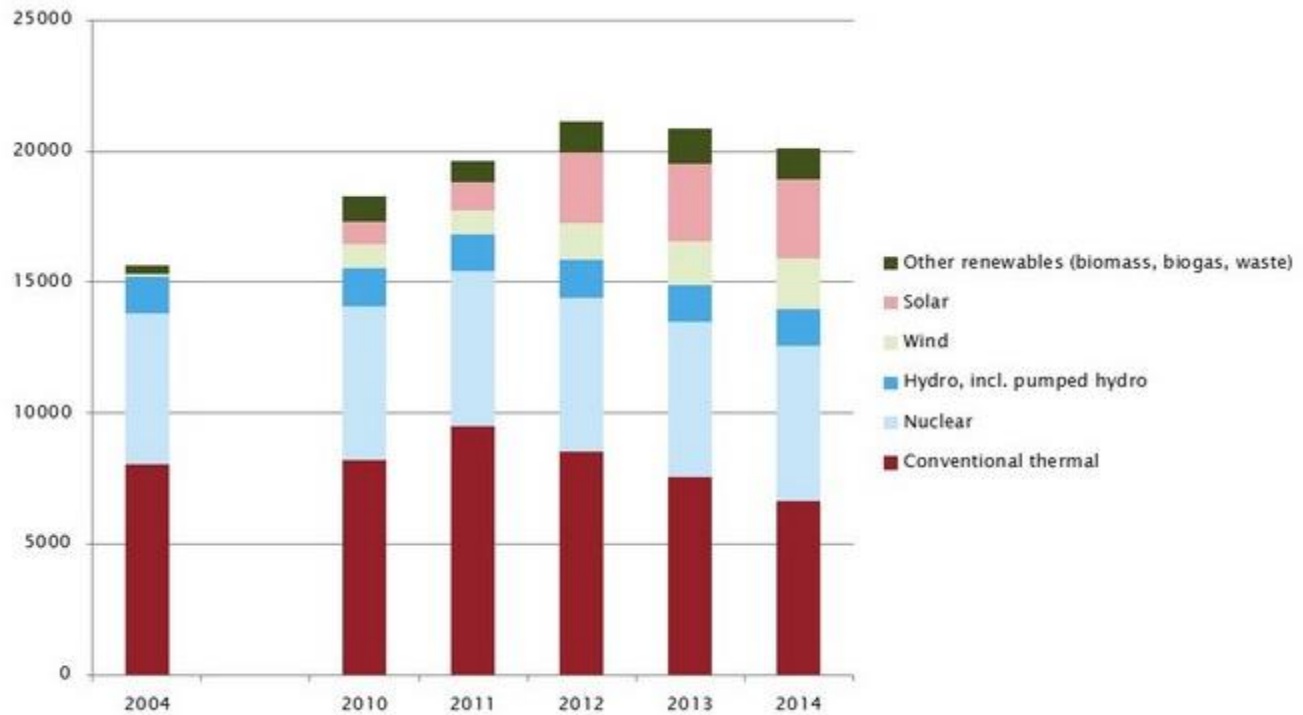


Source : Elia



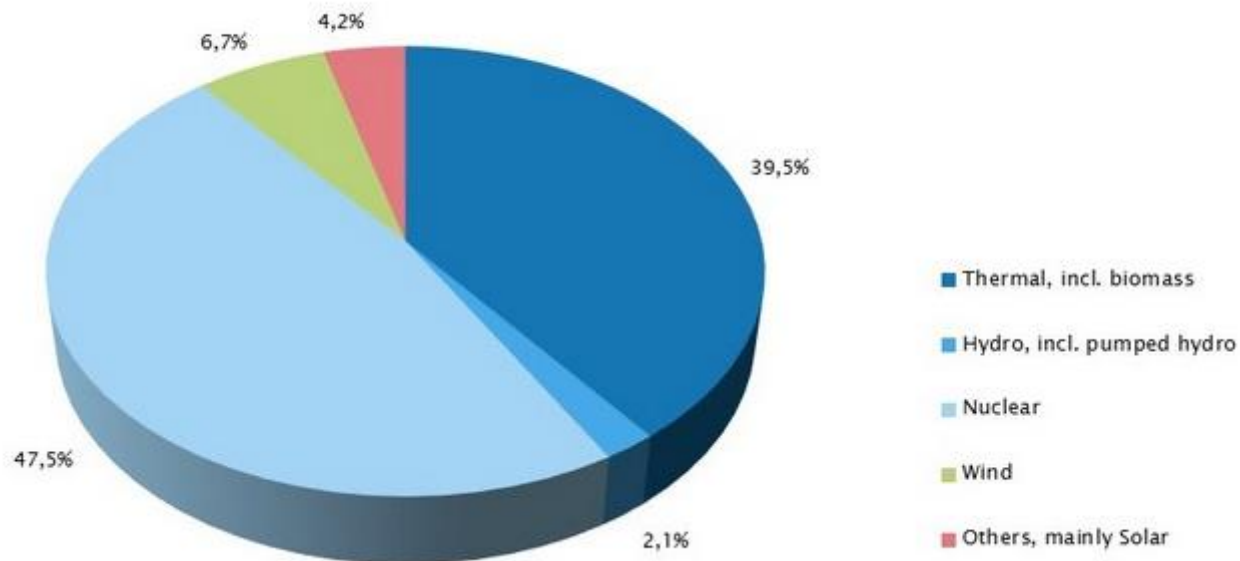
# Installed capacity with reference to primary resources

## Installed capacity [MW], 2004-2014



Source : FEBEG

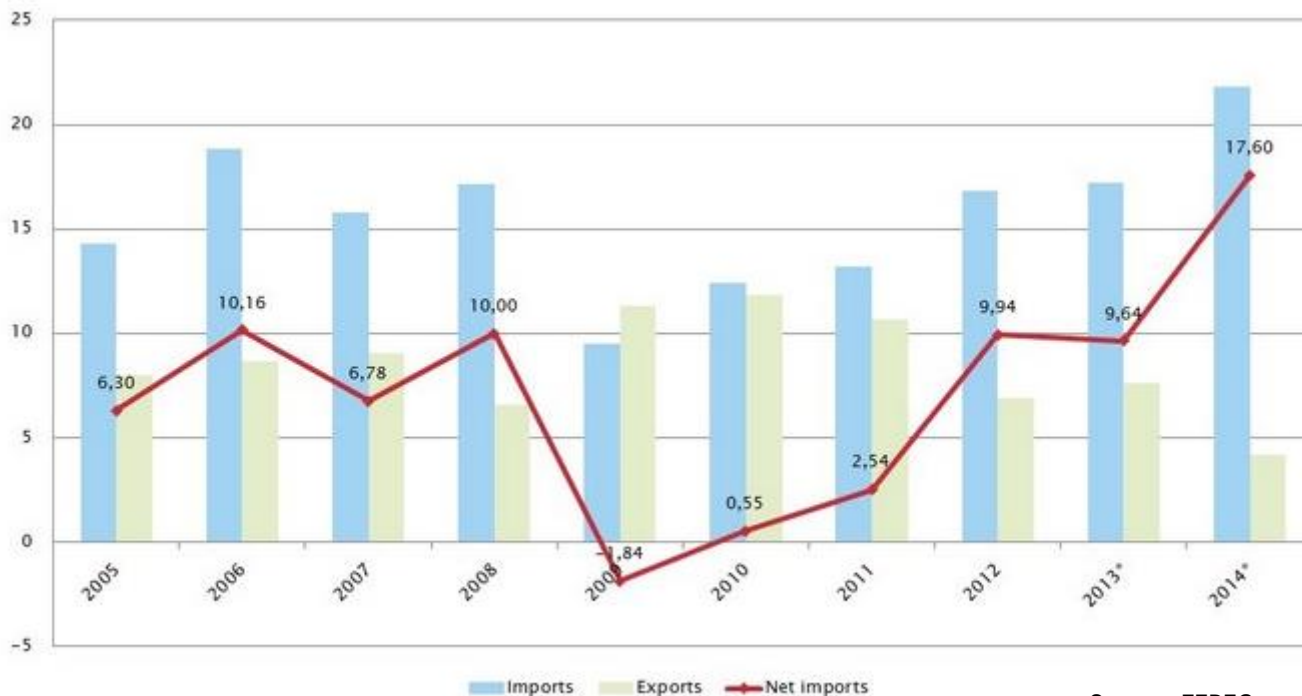
Share of net production [Total : 67,6 TWh], 2014



Source : FEBEG

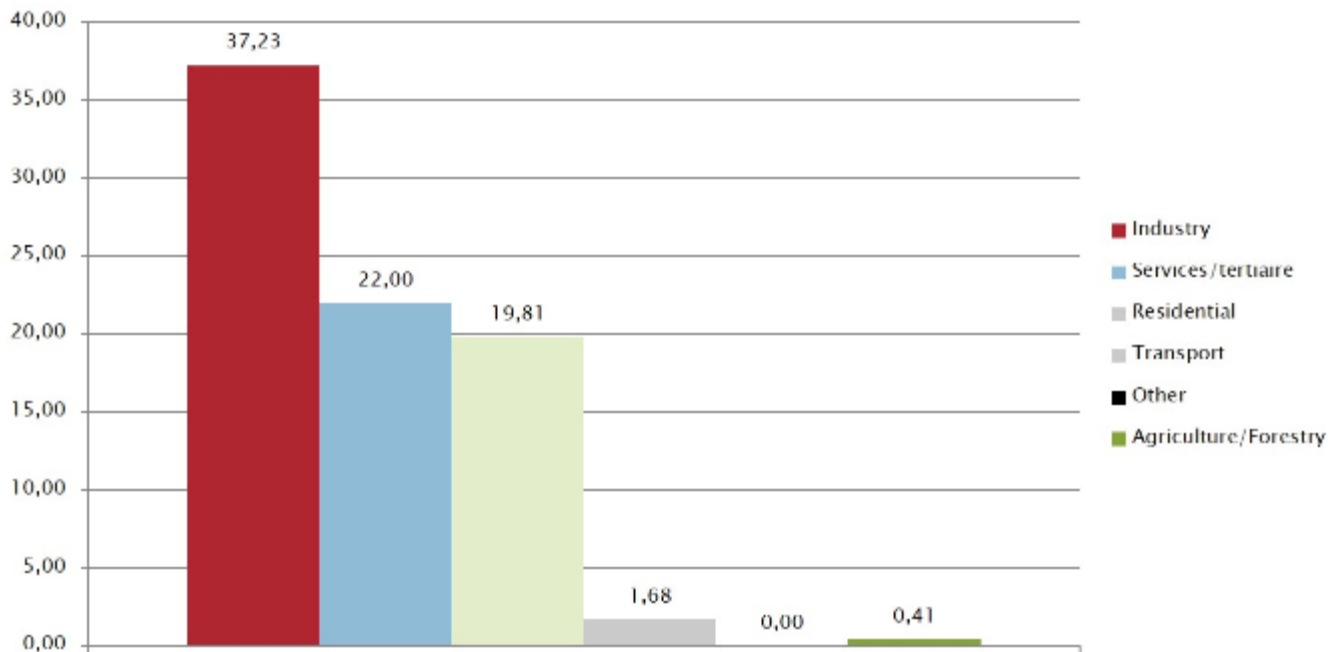


Total yearly imports, exports and net imports [TWh], 2005-2014



Source : FEBEG

## Final electricity consumption by sector [TWh], 2014



Source : FEBEG



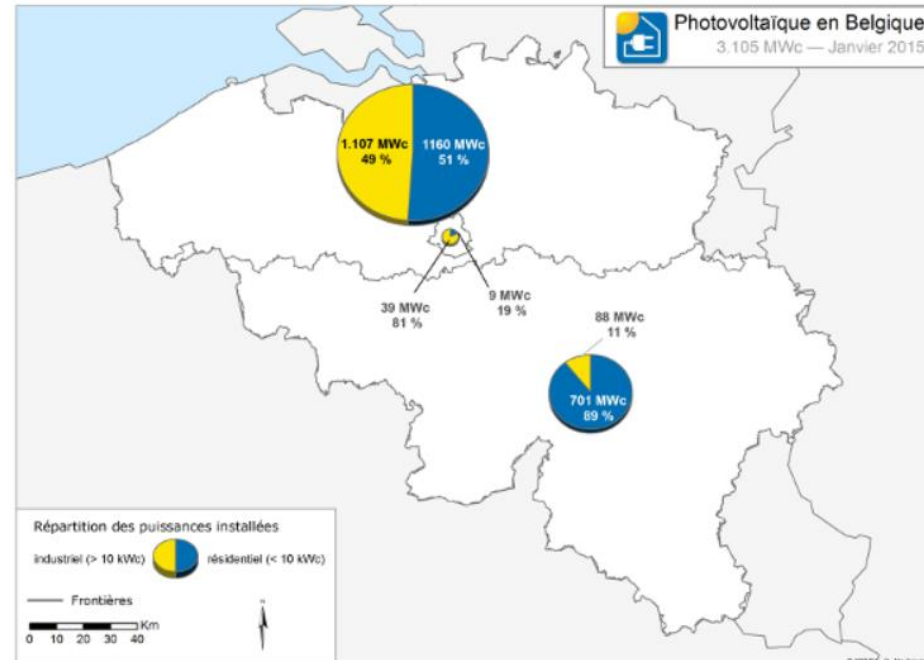
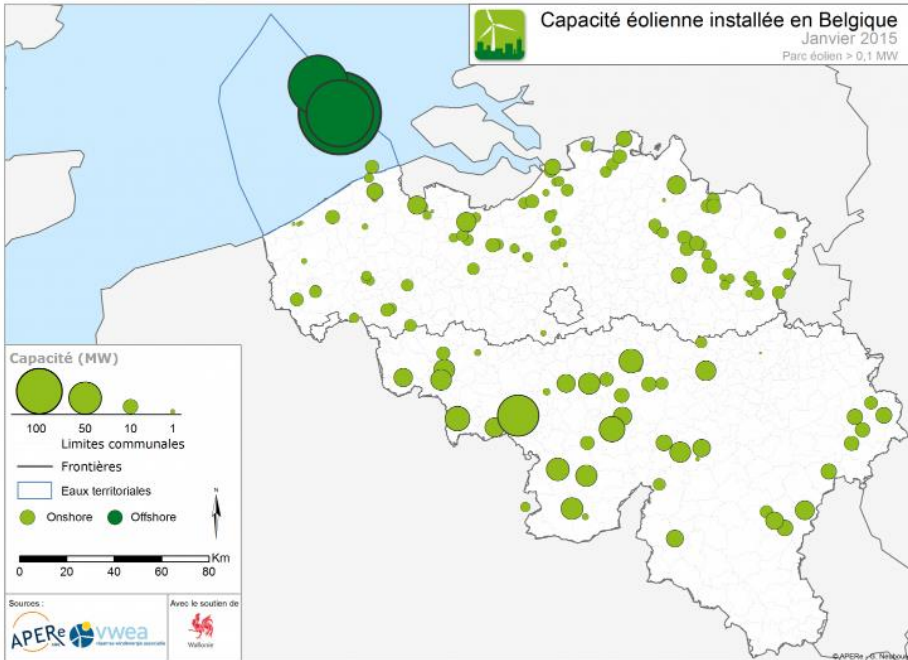
## Renewables



# Location of RES

Installed Wind turbines (end 2014)

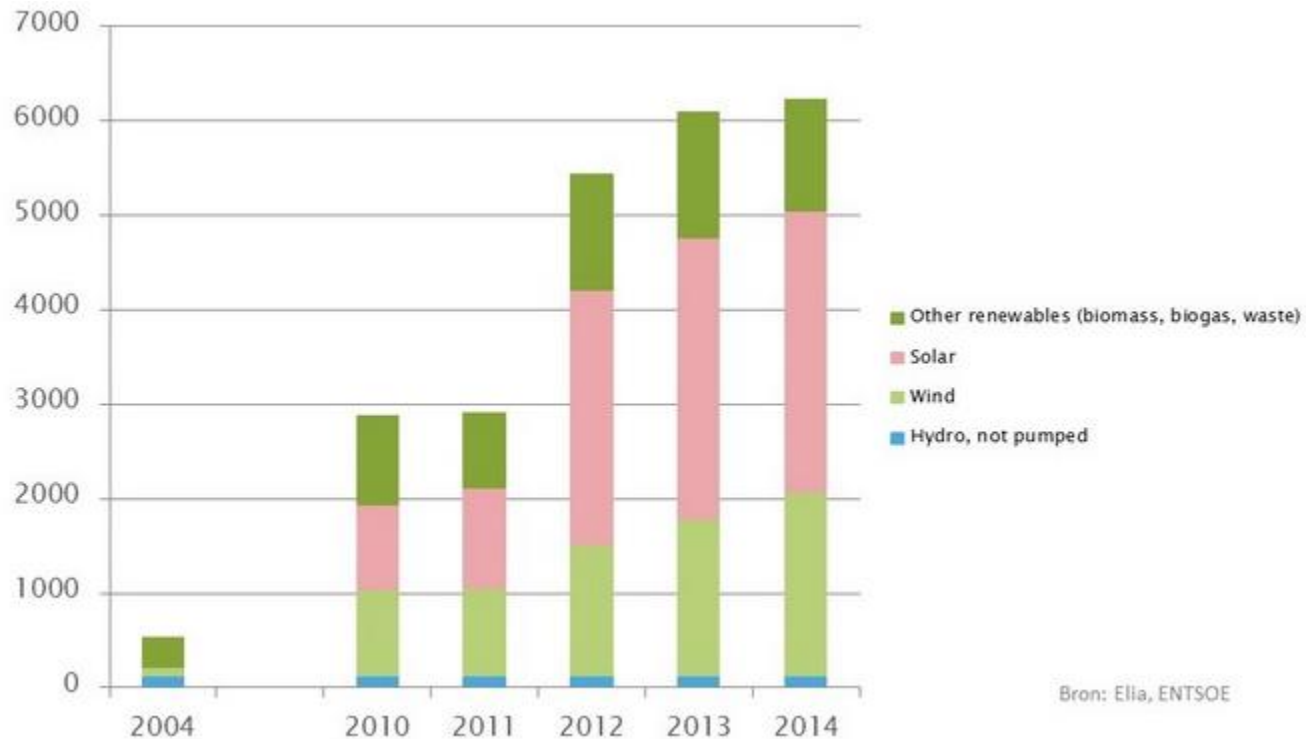
Installed PV panels (end 2014)



Source: APERE

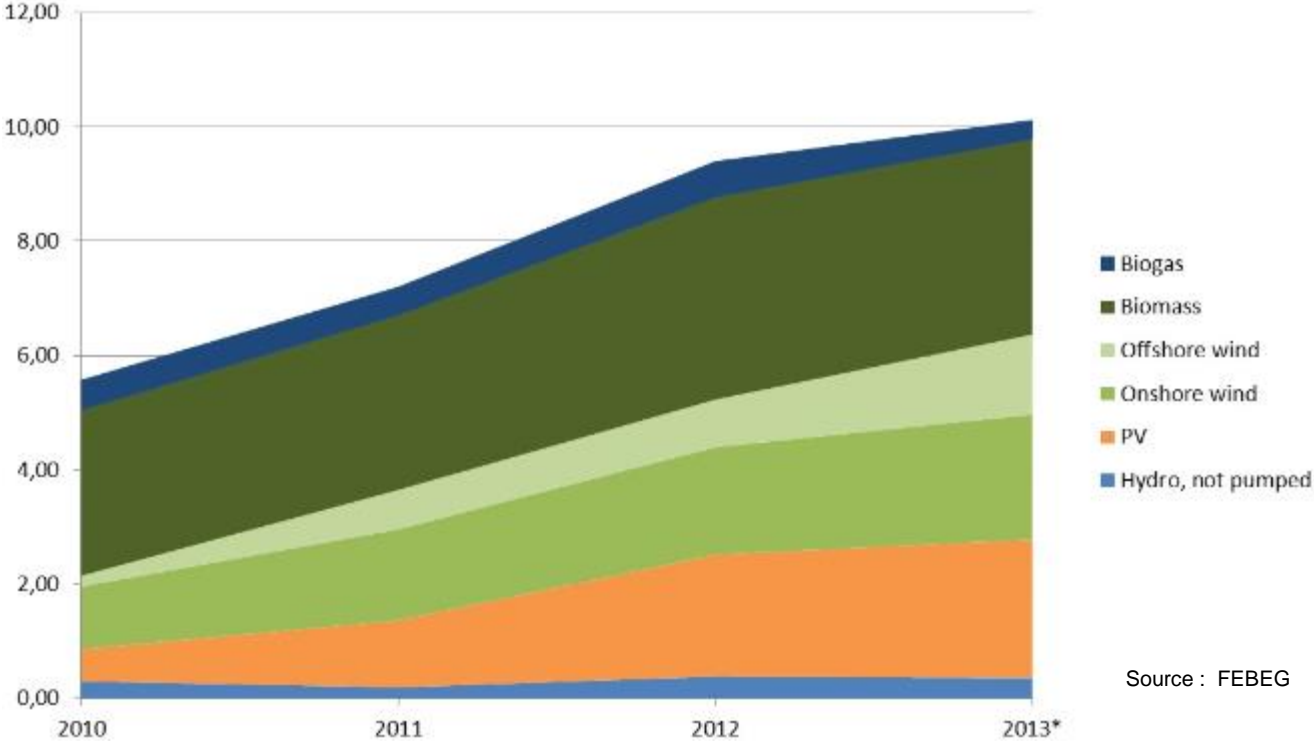


Installed production capacity by primary source [GW], 2004-2014



# RES Production

Yearly net electricity production from RES by primary source [TWh], 2010-2013



Source : FEBEG

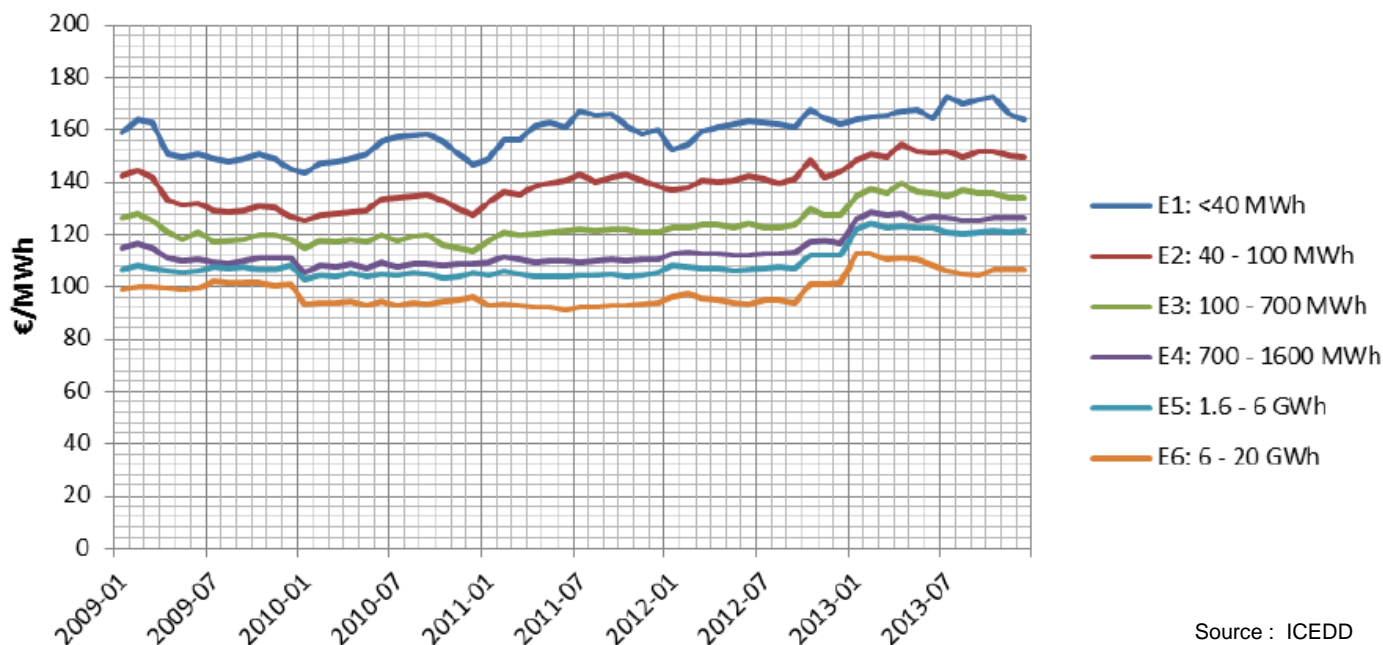




Market



Electricity price, all-in (excl. VAT) [€/MWh], 2009-2013

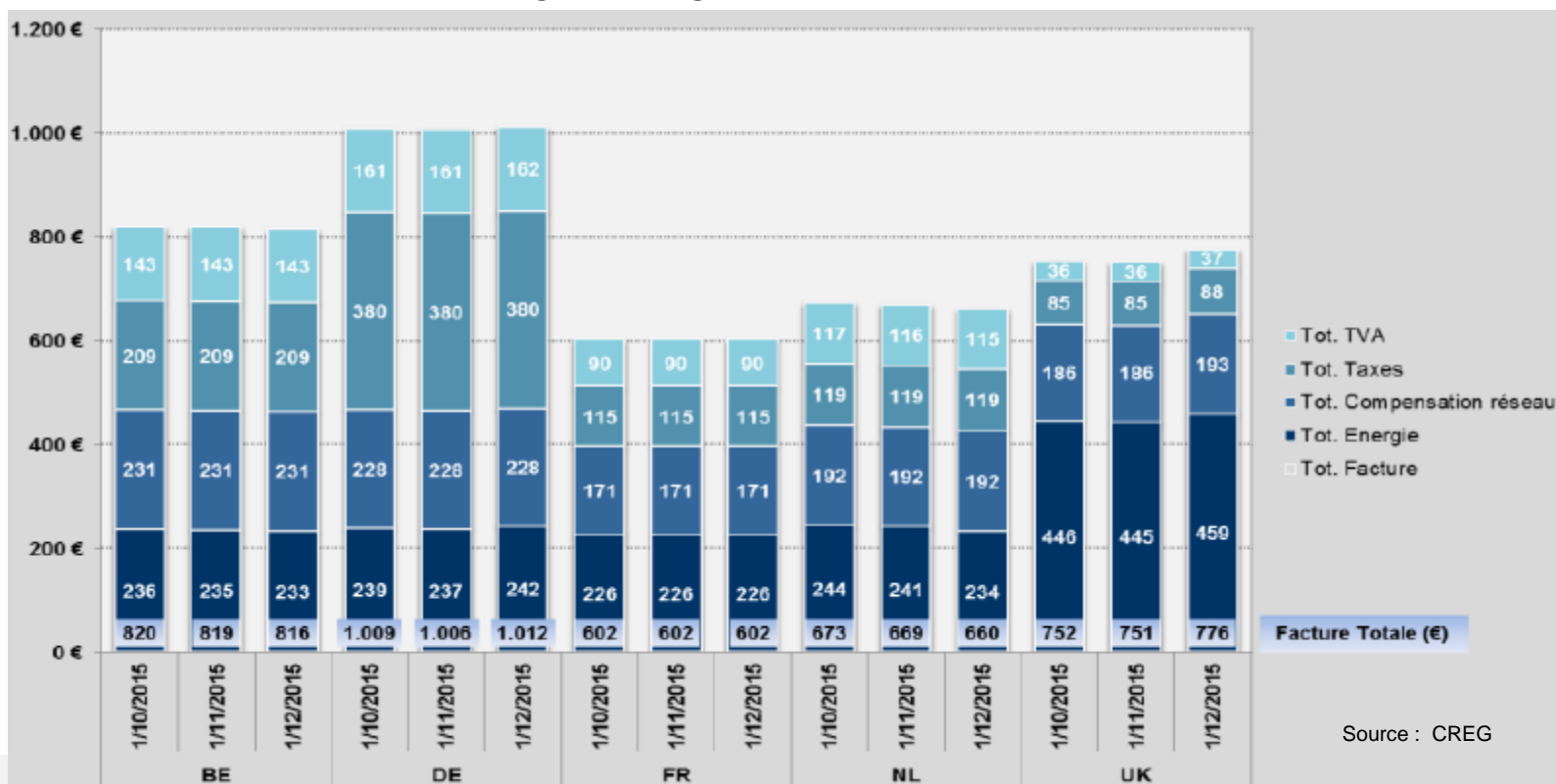


Source : ICEDD



# Electricity price for households

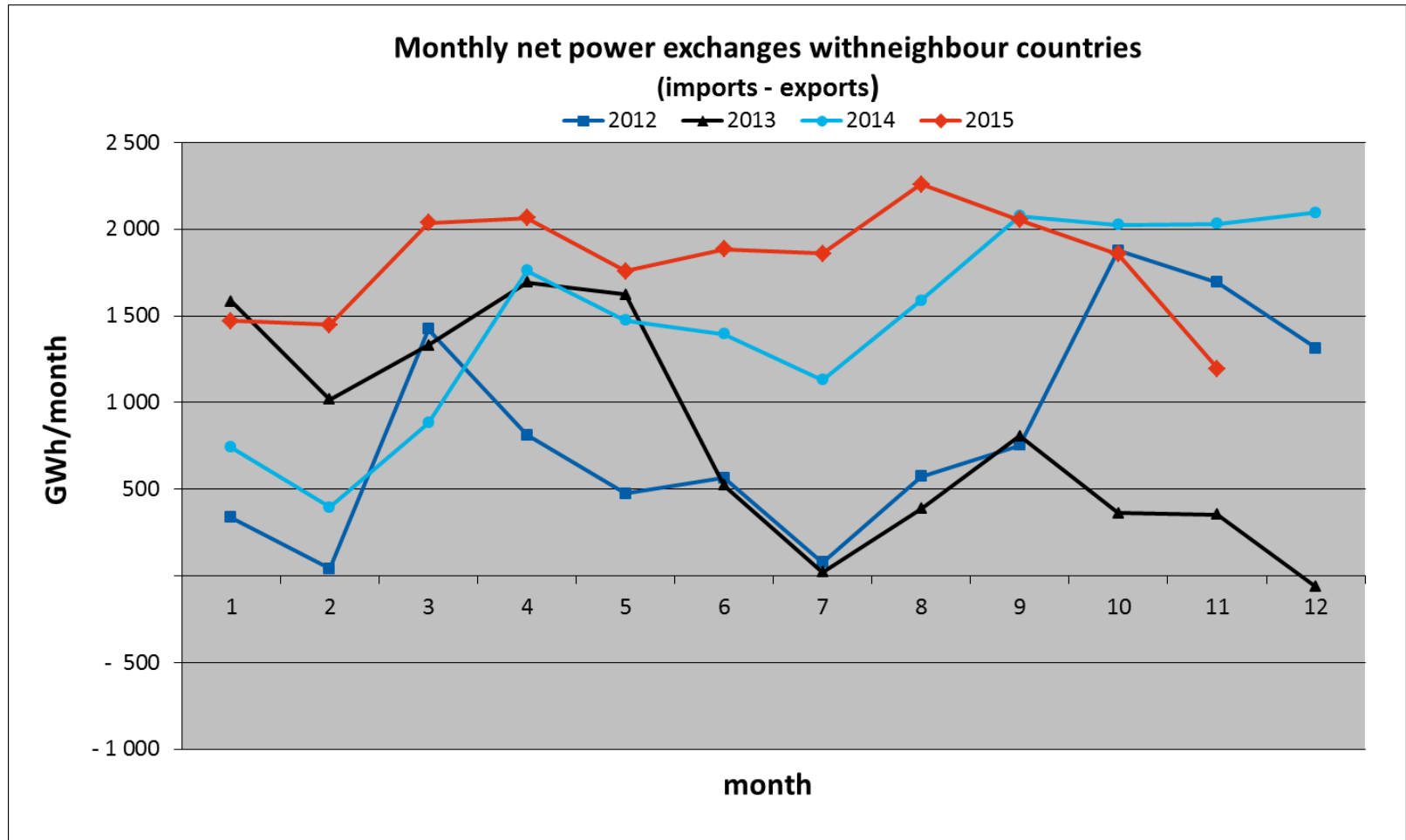
Electricity cost for an average household (3500 kWh/year),  
 Yearly cost, all-in (incl. VAT) [€/year], situation in Q4/2015  
 BE compared to neighboring countries (DE,FR,NL,UK)



Source : CREG



# Energy exchange (commercial flows)



Source : Elia / Synergrid

