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Renewable Electricity Sources in Visegrad Countries

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CEEC 2019, Bratislava



This presentation is based on a policy paper “**Renewable Energy Sources and their Promotion in the Visegrad Countries: Lessons Learned**”.

The paper was prepared by the **V4 Energy Think Tank Platform** in summer 2019.

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Renewable support schemes in V4

1

Hungary

- 2003: feed-in tariff scheme KÁT
- 2017: replaced by a new feed-in premium METÁR system - competitive procedure for projects over 1 MW capacity

Poland

- 2005: green certificates, replaced by an auction mechanism in 2016 - last amendment in summer 2019
- guaranteed market premium

Czech Republic

- feed-in tariff / feed-in premium system in place since 2006
- a new amendment will introduce an auction system

Slovakia

- 2009: feed-in tariff system
- 2019, 2020: first auctions under a new competitive bidding process



Developments between 2009-2017

2

Czech Republic

- solar boom in 2009/2010 → discontinuation of operational support
- new installations mainly small PVs with investment support

Slovakia

- solar boom between 2010-2011 → legislation amended and the development of RES hindered

Poland

- progressive development of wind power plants with relatively low costs - stagnated after destabilization in 2016

Hungary

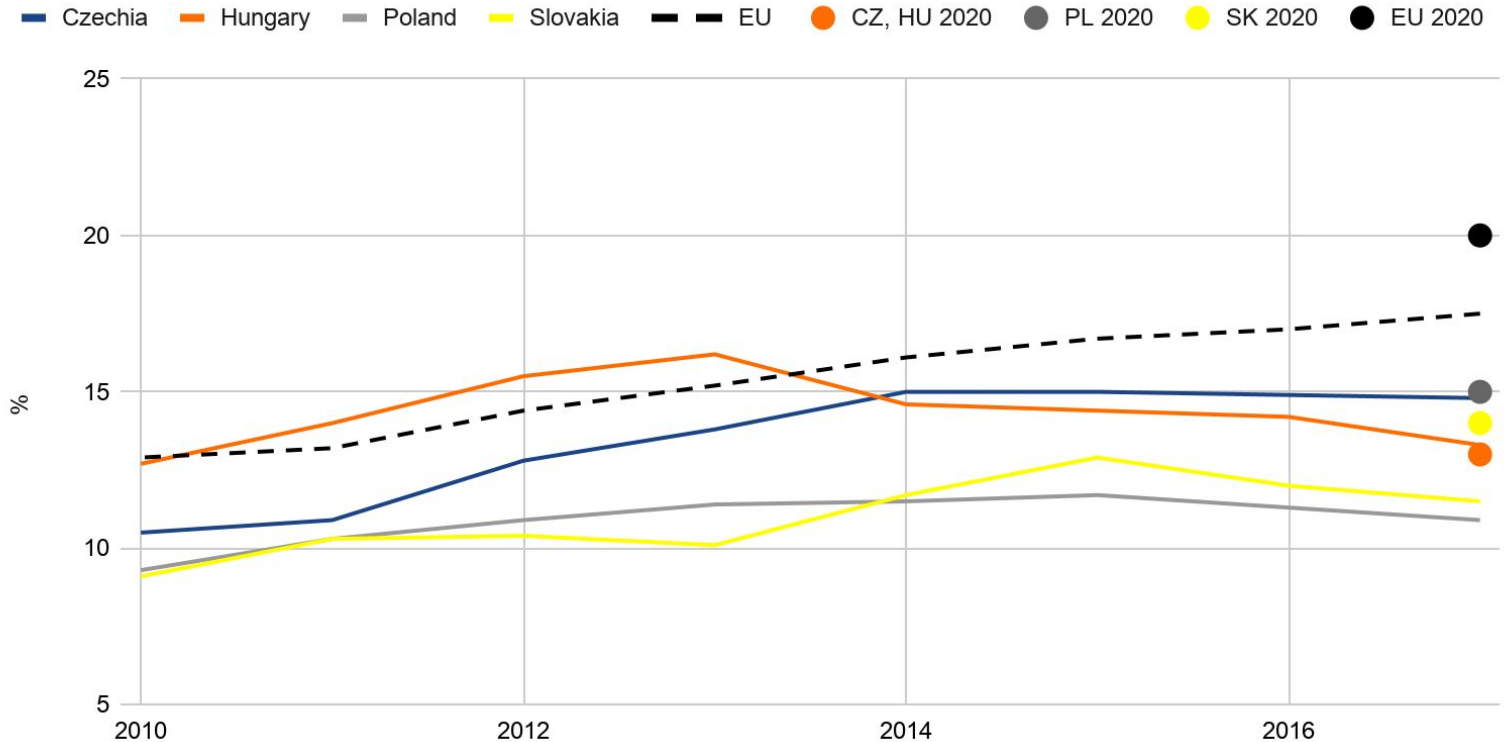
- investors' environment relatively stable, but level of investment low → corresponds to a low share of RES-E (x heating&cooling)



2020 RES targets

3

Share of renewables in gross final energy consumption



Source: Eurostat



The costs of RES support

4

RES electricity support expenditures in 2016

Country	Million EUR
Czech Republic	1,524
Hungary	163
Poland	586
Slovakia	375

Sources: CEER Status Review of Renewable Support Schemes in Europe 2018, International Energy Agency: Slovak Republic 2018 Review



The costs of RES support

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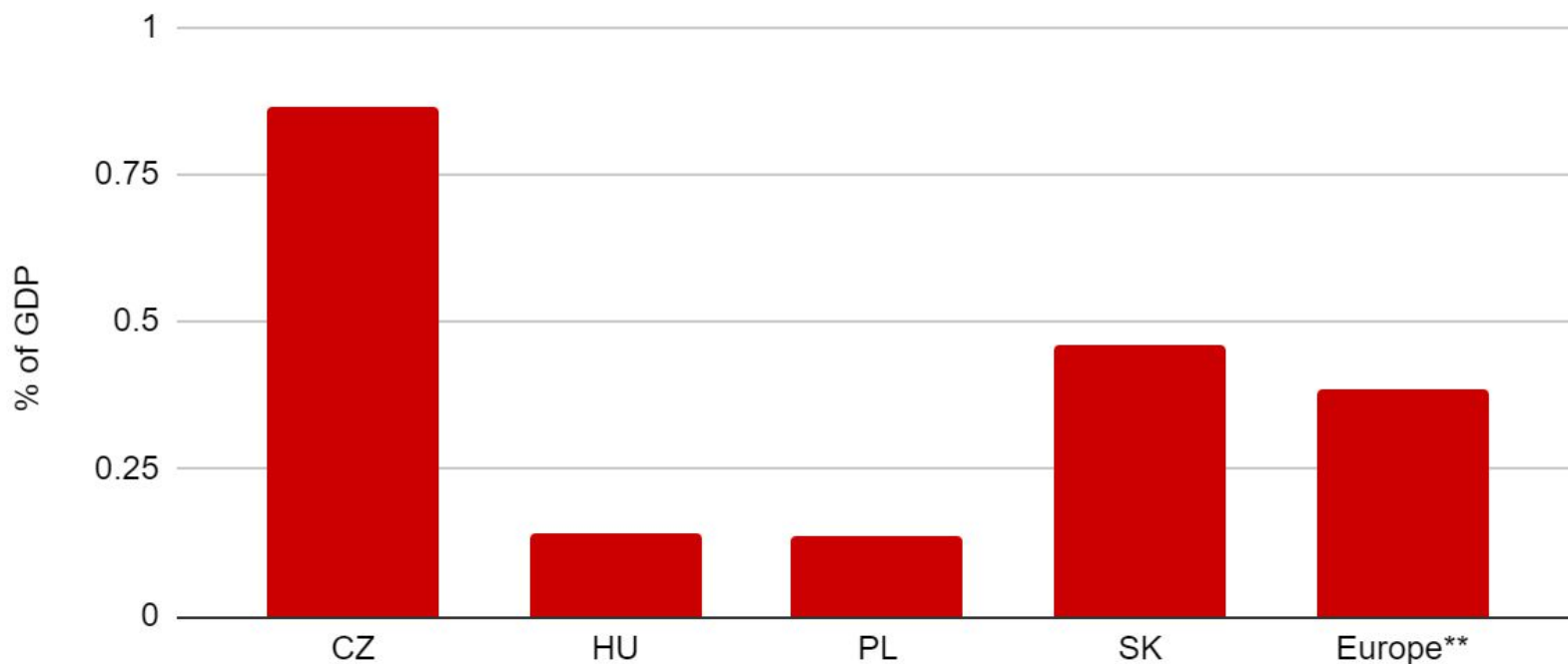


The costs of RES support

5

RES electricity support costs as % of GDP (2016)

**Europe = 25 countries covered by CEER 2018 report



Sources: CEER Status Review ... 2018, IEA: Slovak Republic 2018 Review

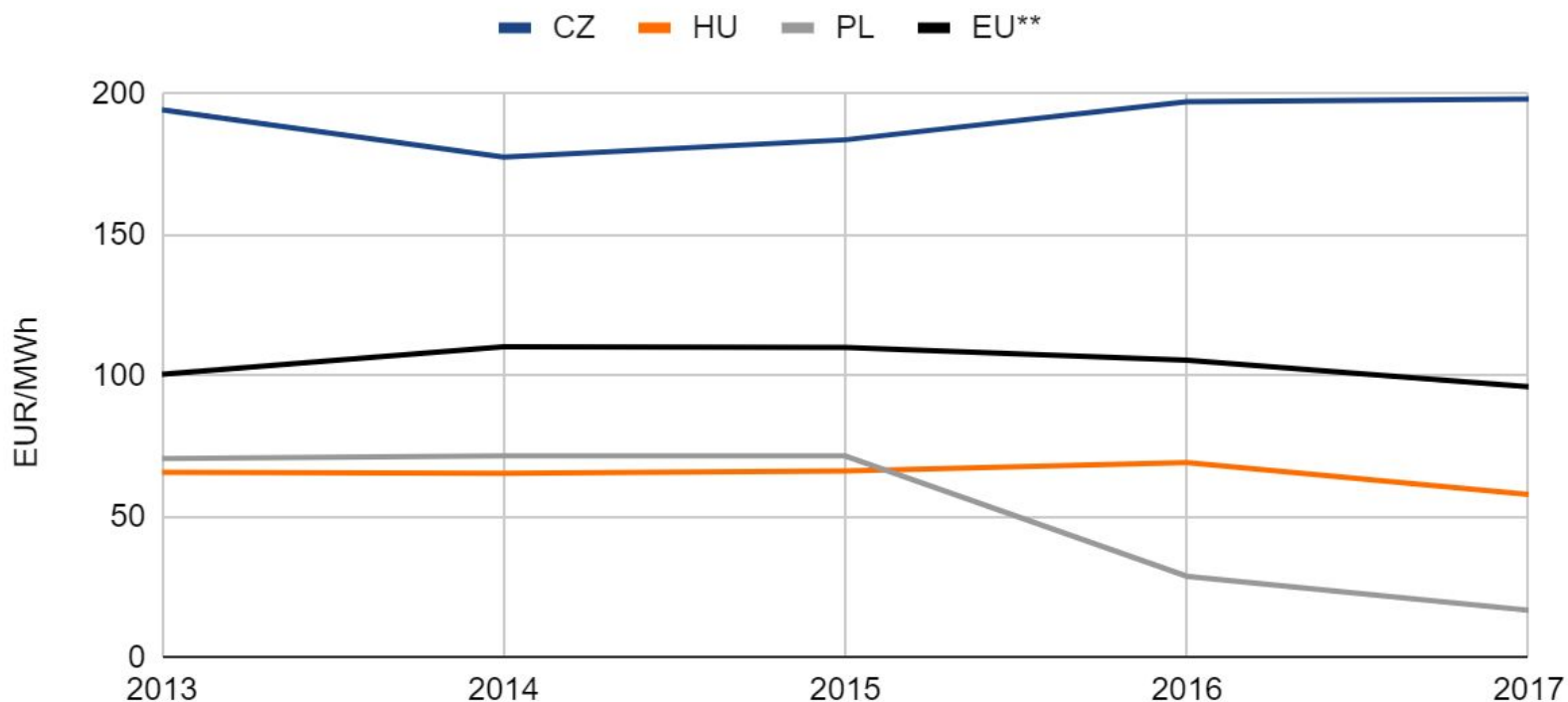


The costs of RES support

6

Weighted average support for RES*

*no data for SK, **the number of EU countries followed varies between 21 and 26



Source: CEER Status Review of Renewable Support Schemes in Europe, 2015-2018

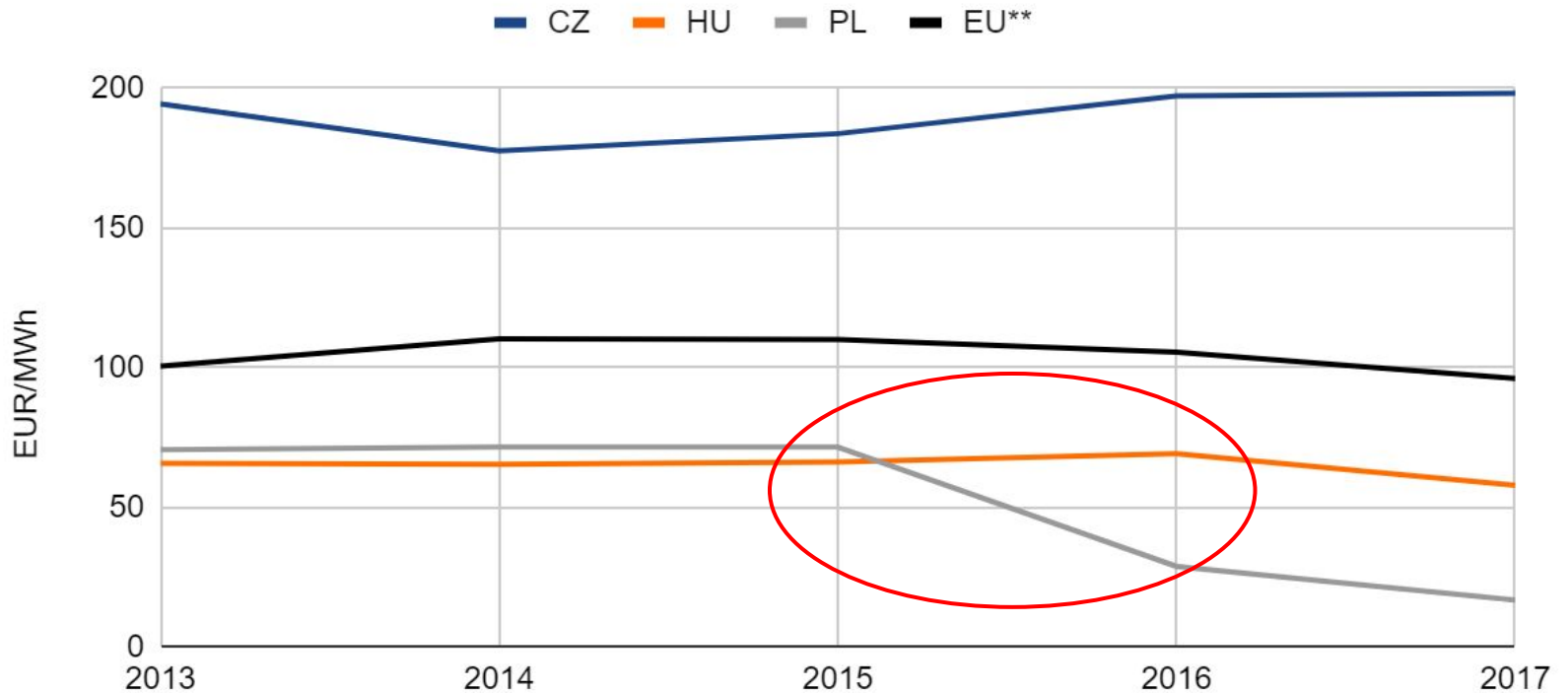


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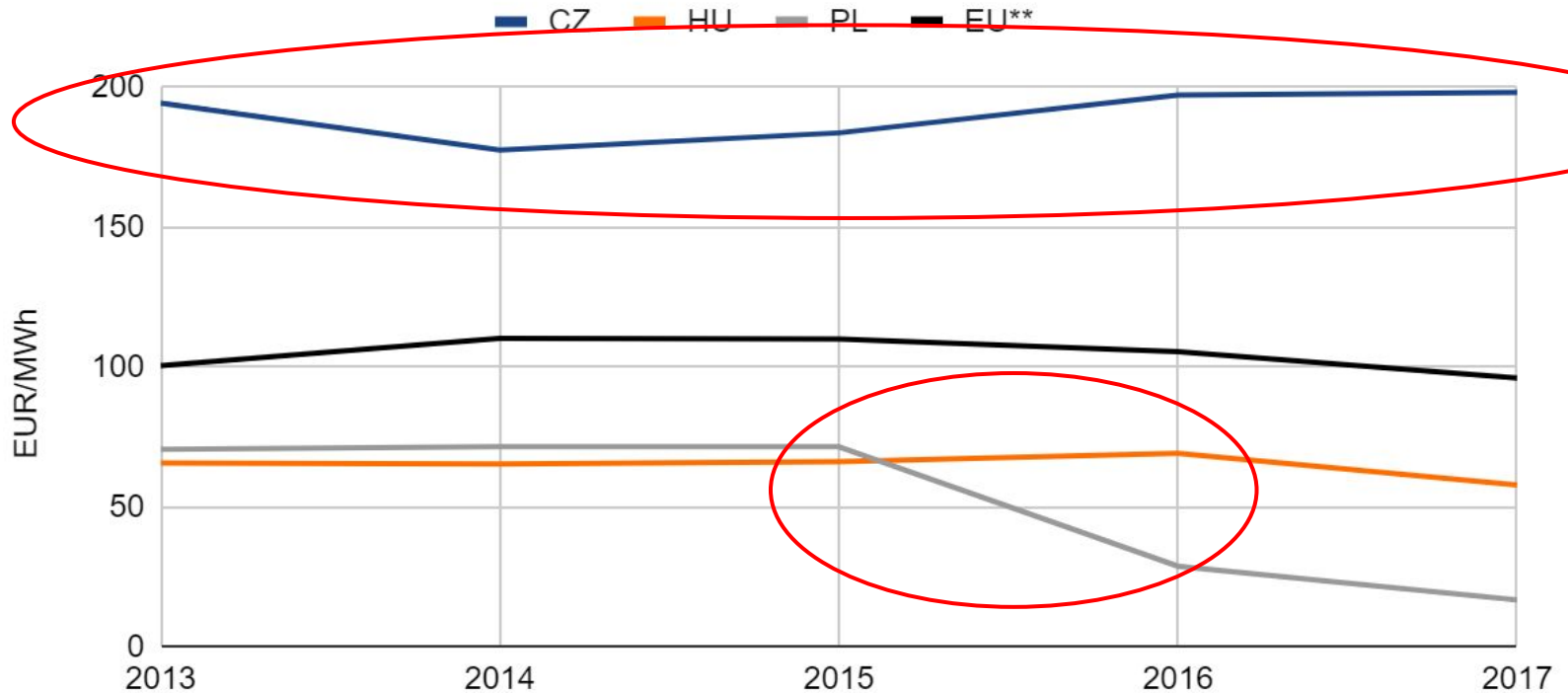


The costs of RES support

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The costs of RES support

7

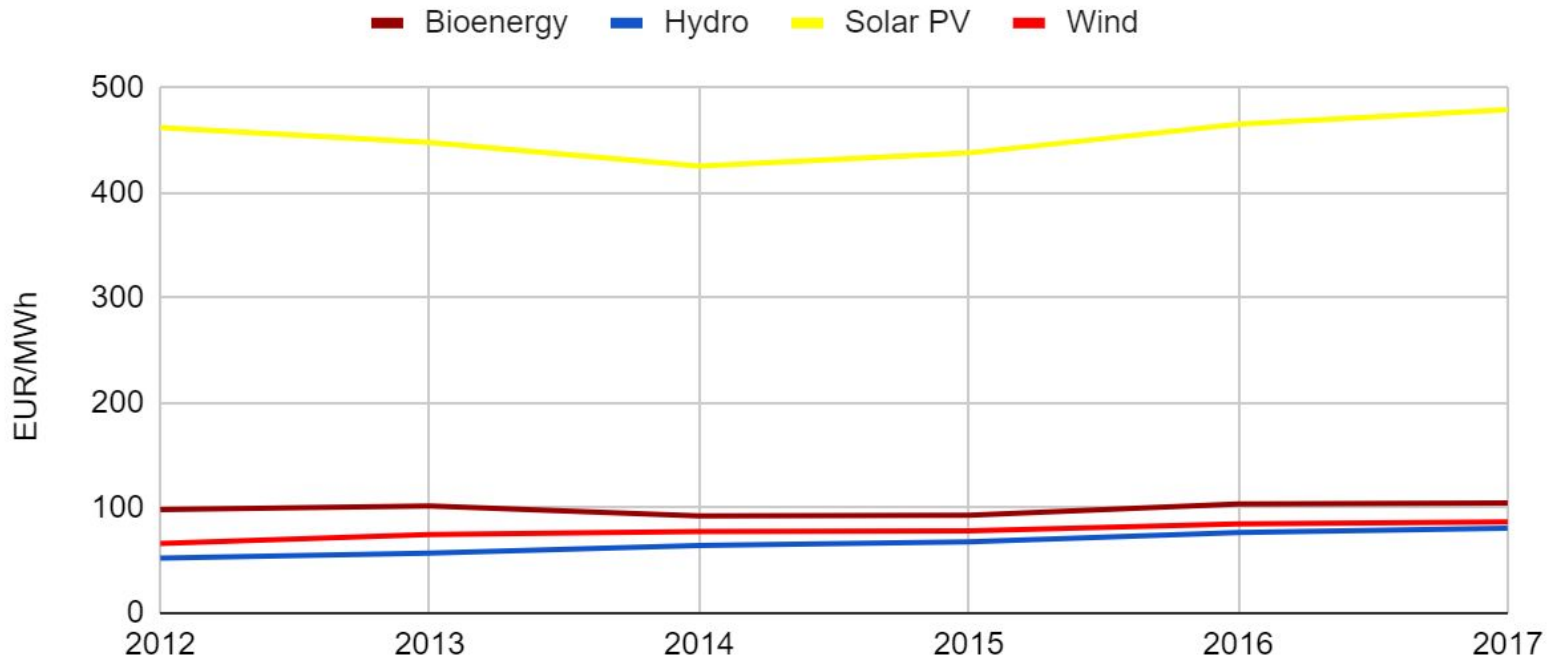
Weighted average support for RES in 2016	
Country	EUR/MWh
Czech Republic	197.31
Hungary	69.39
Poland	29.03
Slovakia	133
EU	105.61
Sources: CEER Status Review of Renewable Support Schemes in Europe 2018, International Energy Agency: Slovak Republic 2018 Review	



The costs of RES support

8

Weighted average support level by technology
Czech Republic



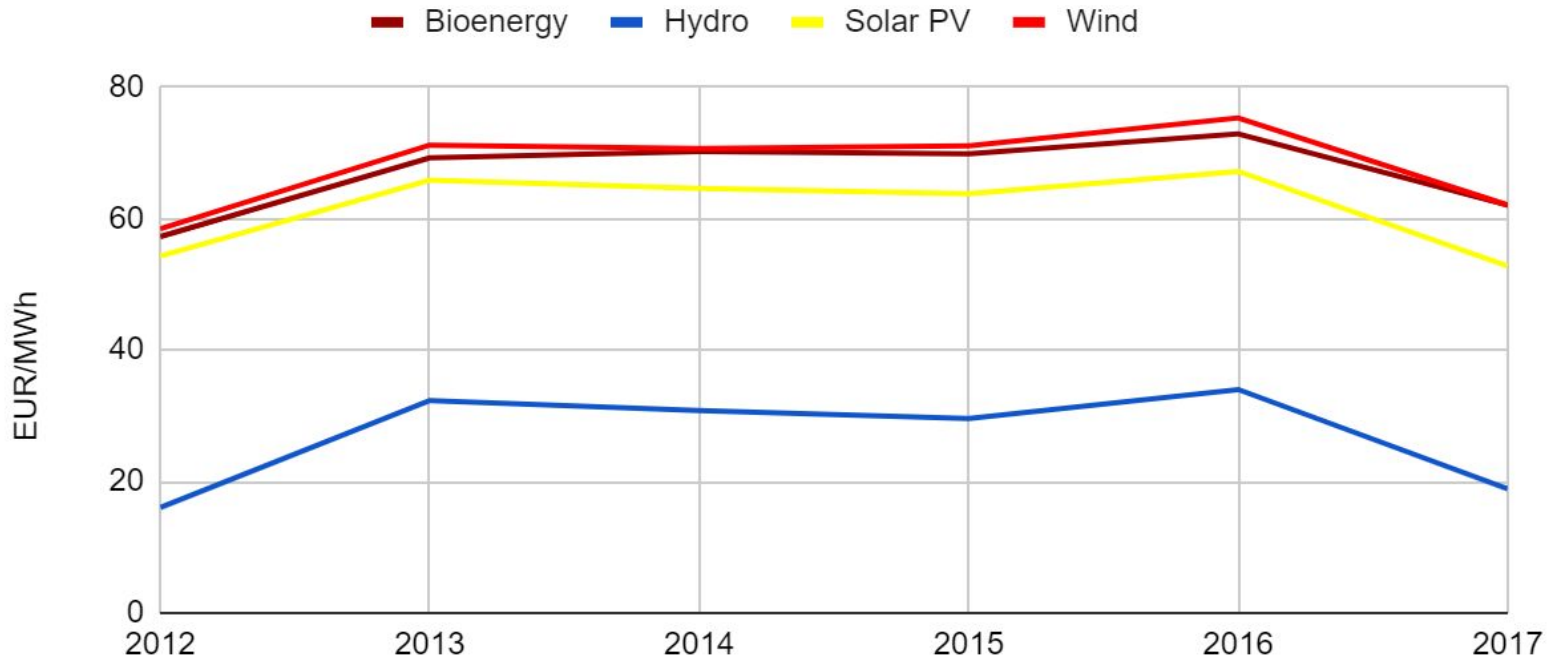
Source: CEER Status Review of Renewable Support Schemes in Europe, 2015-2018



The costs of RES support

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Weighted average support level by technology
Hungary



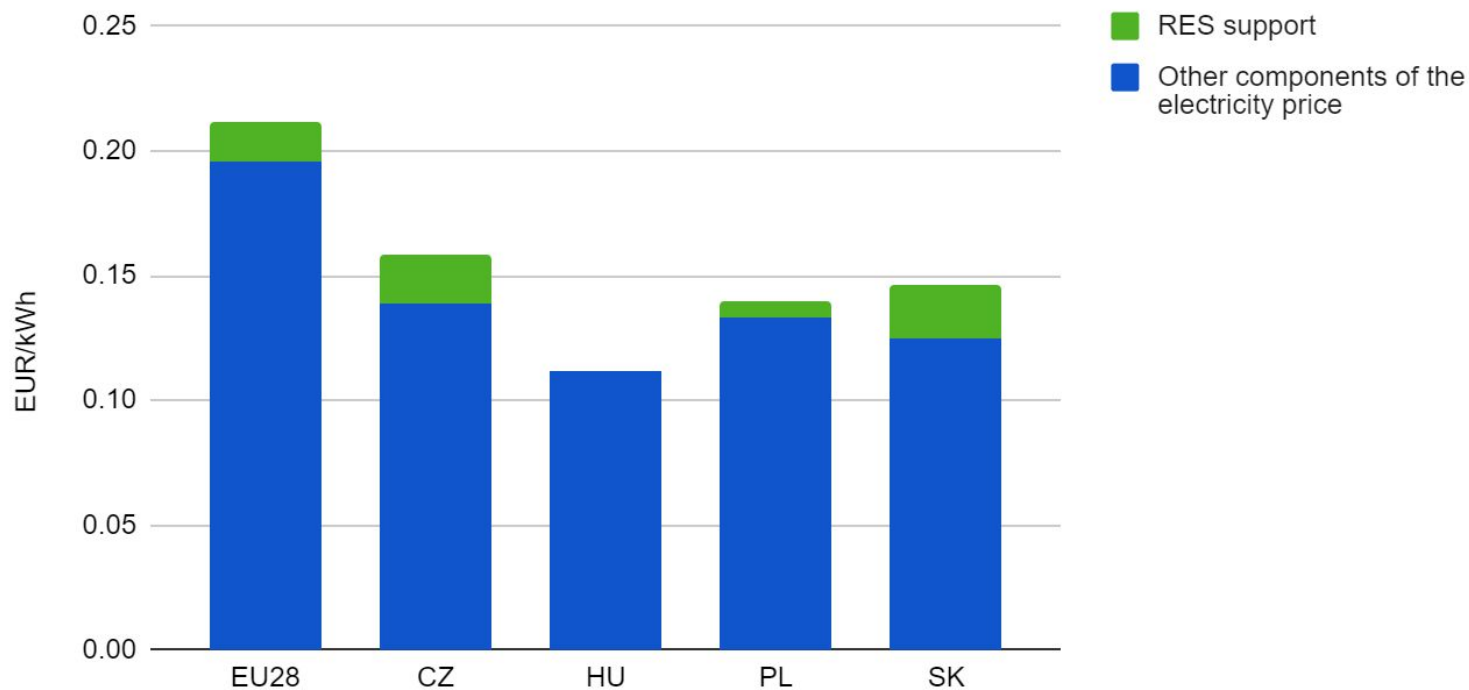
Source: CEER Status Review of Renewable Support Schemes in Europe, 2015-2018



The costs of RES support

10

Share of RES support levy on electricity price for households*
2018 S2



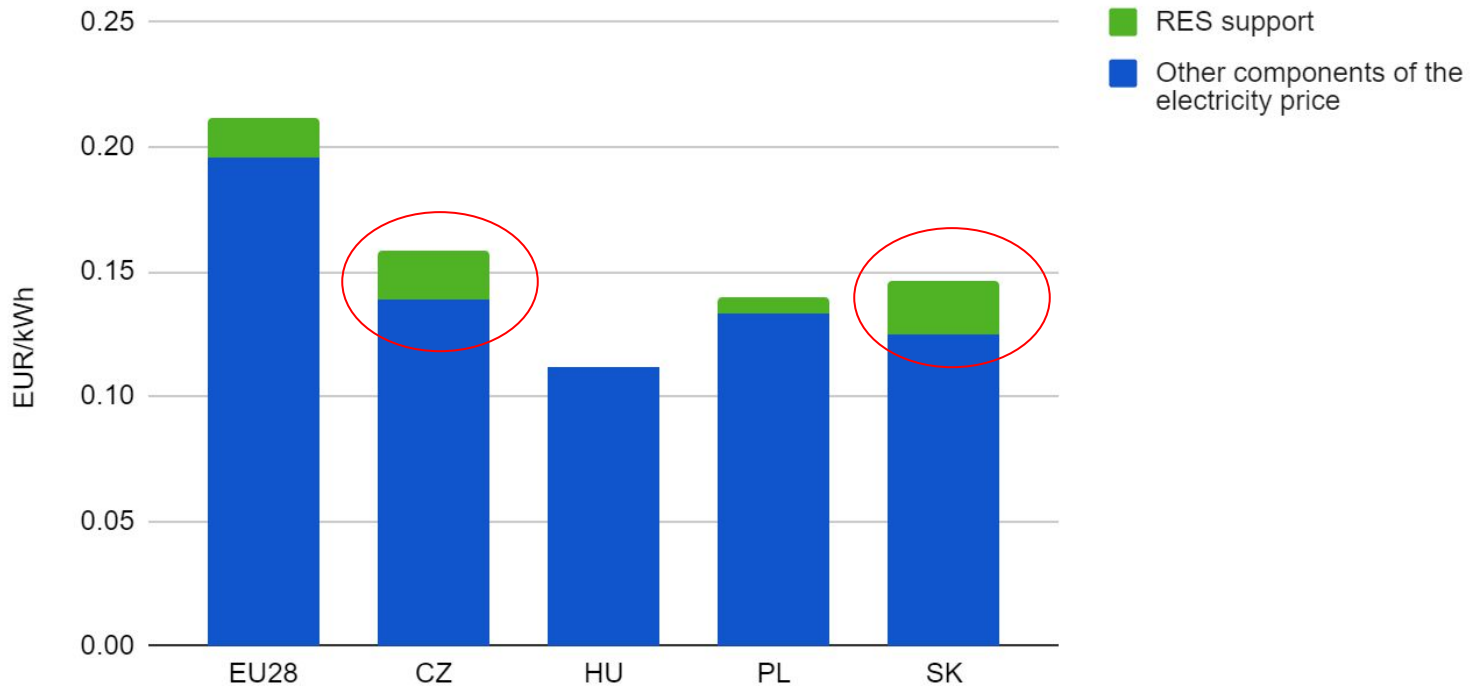
Source: Eurostat; *annual consumption between 2 500 and 5 000 kWh



The costs of RES support

10

Share of RES support levy on electricity price for households*
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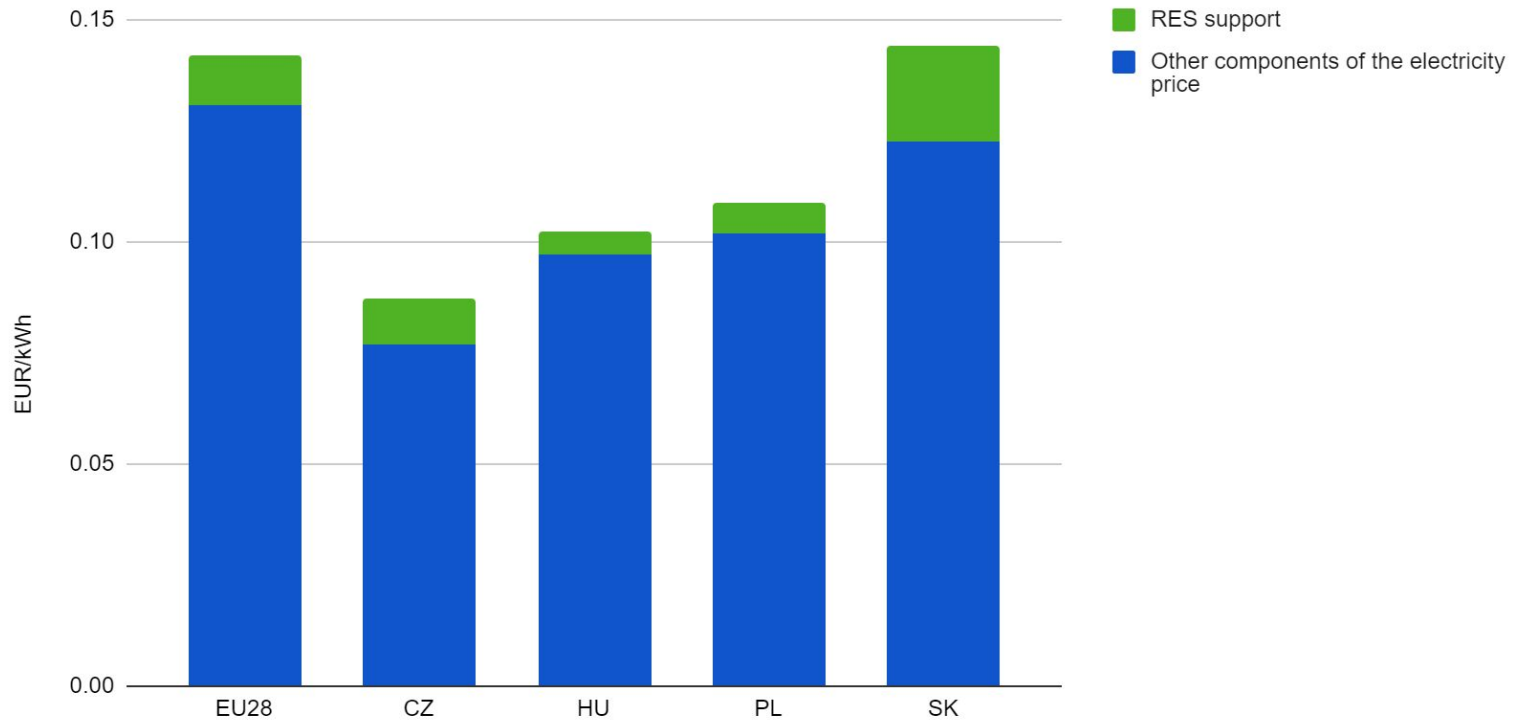
Source: Eurostat; *annual consumption between 2 500 and 5 000 kWh



The costs of RES support

11

Share of RES support levy on electricity price for non-households consumers*
2018 S2



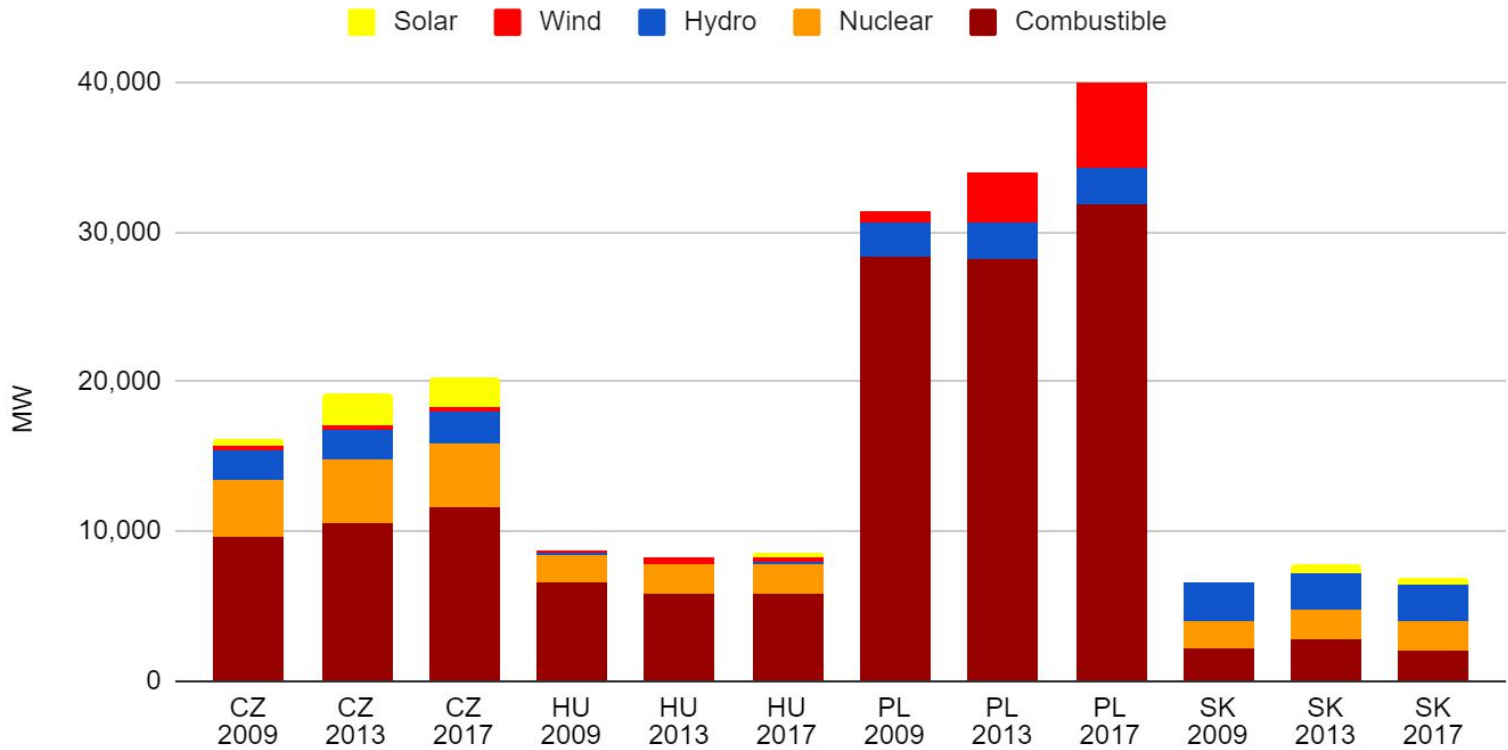
Source: Eurostat; *annual consumption between 500 and 2 000 MWh



RES development

12

Installed electrical capacity



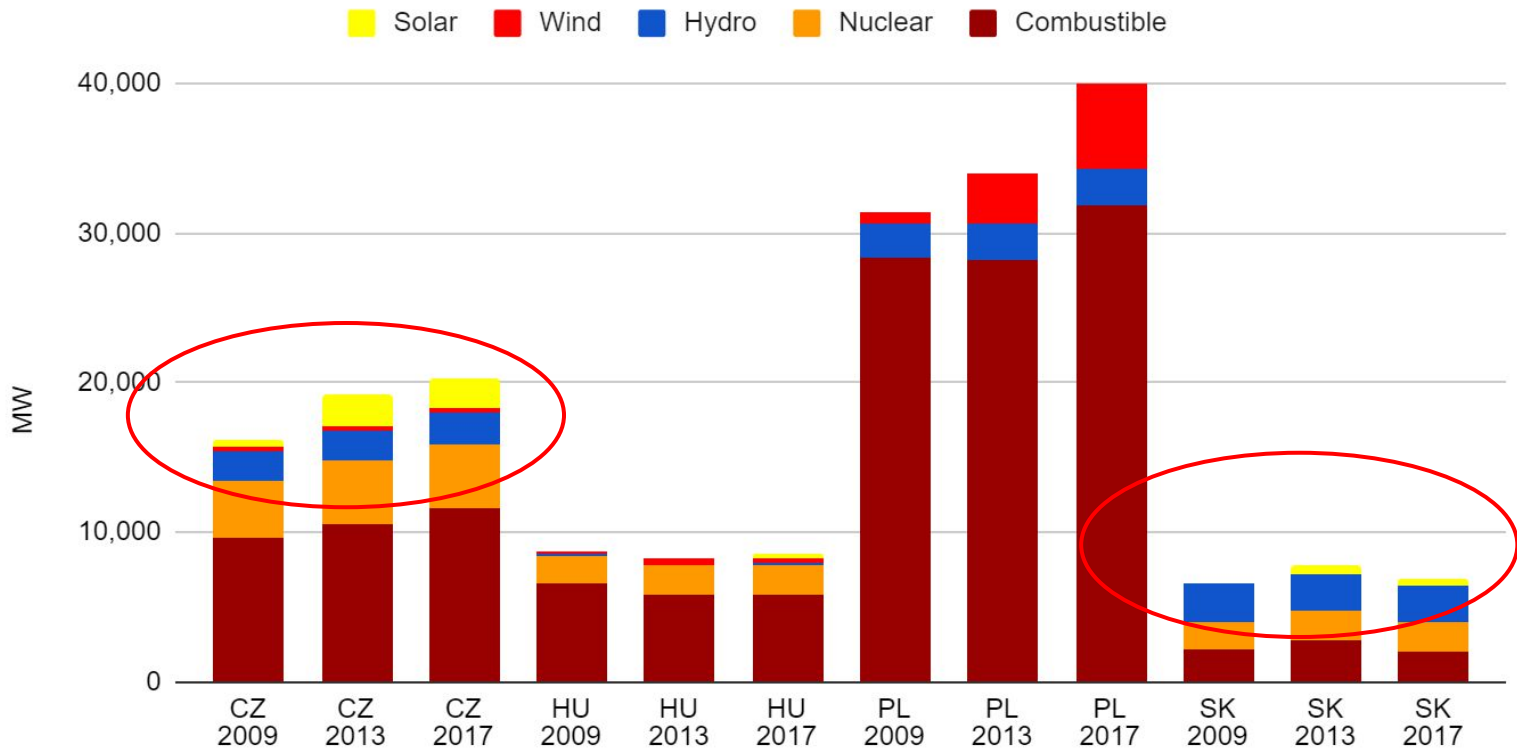
Source: Eurostat



RES development

12

Installed electrical capacity

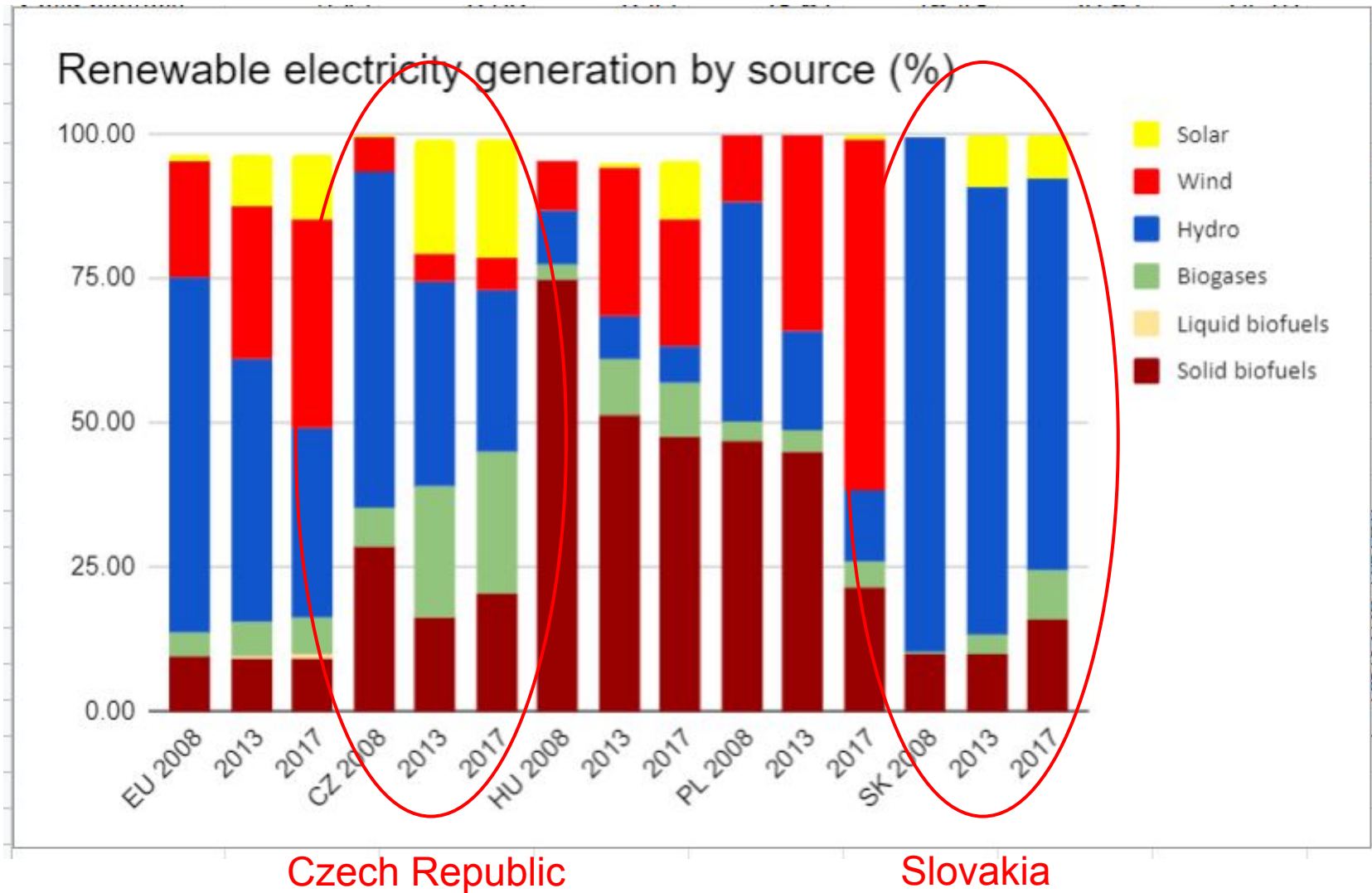


Source: Eurostat



RES development

13

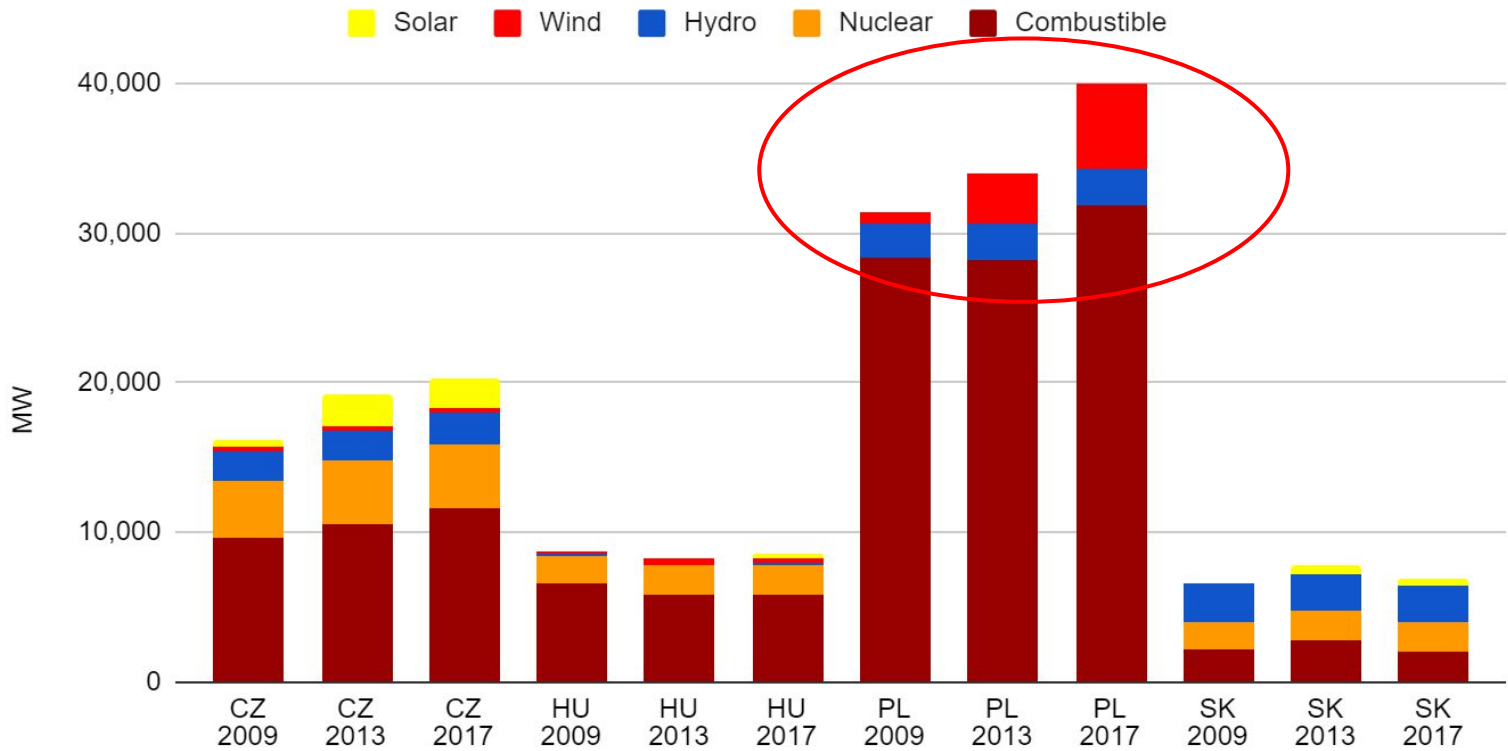




RES development

12

Installed electrical capacity

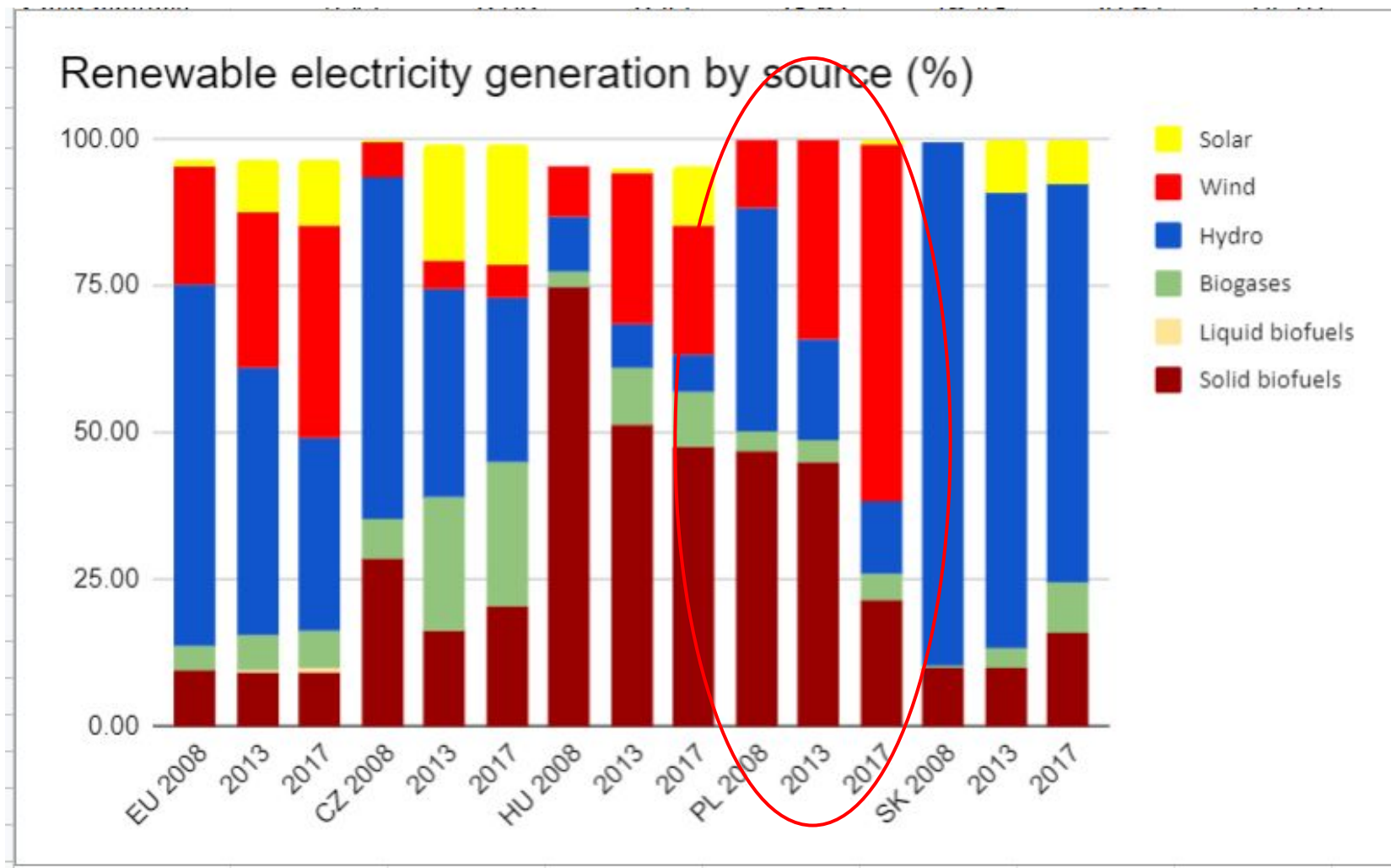


Source: Eurostat



RES development

13

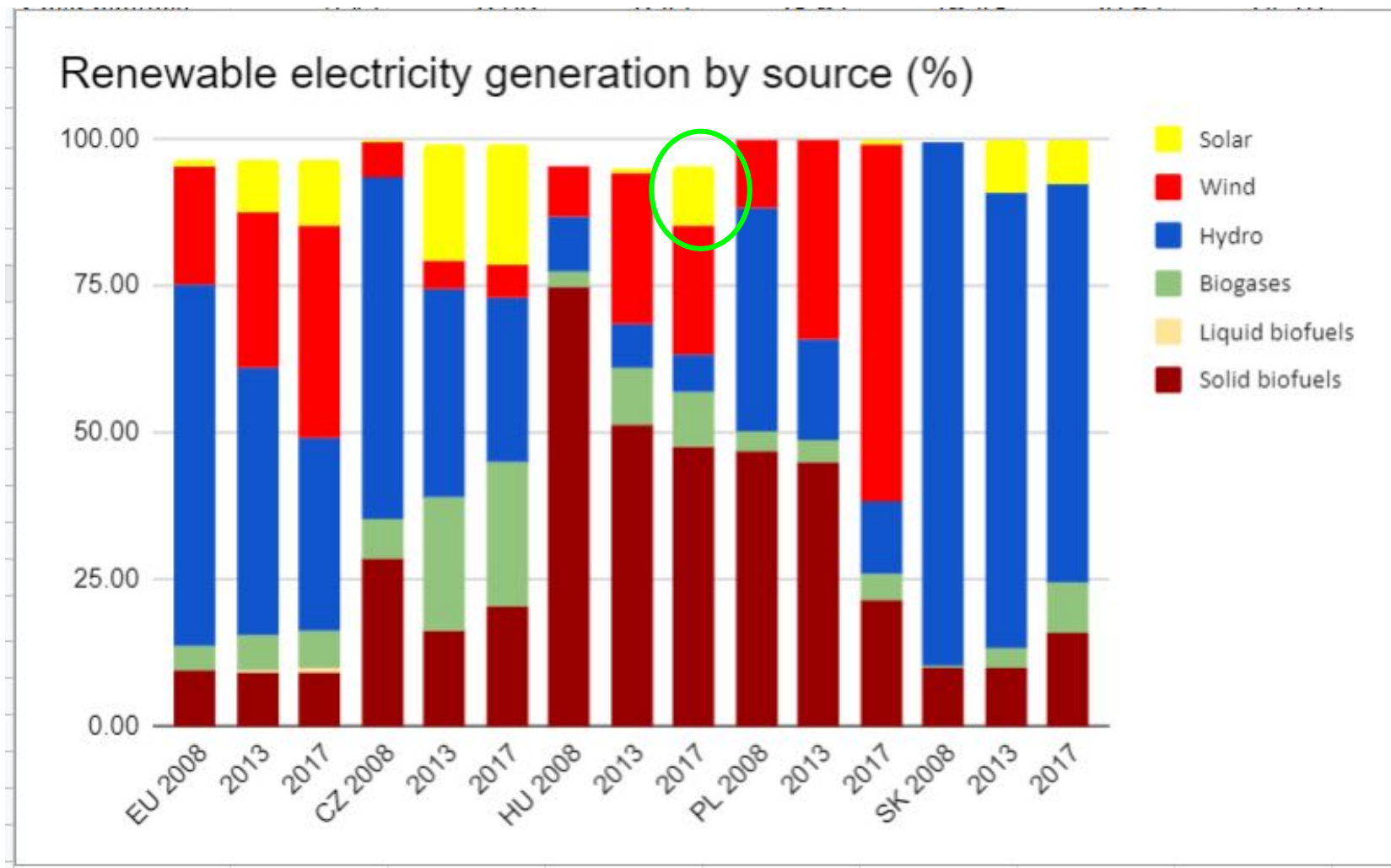


Poland



RES development

13

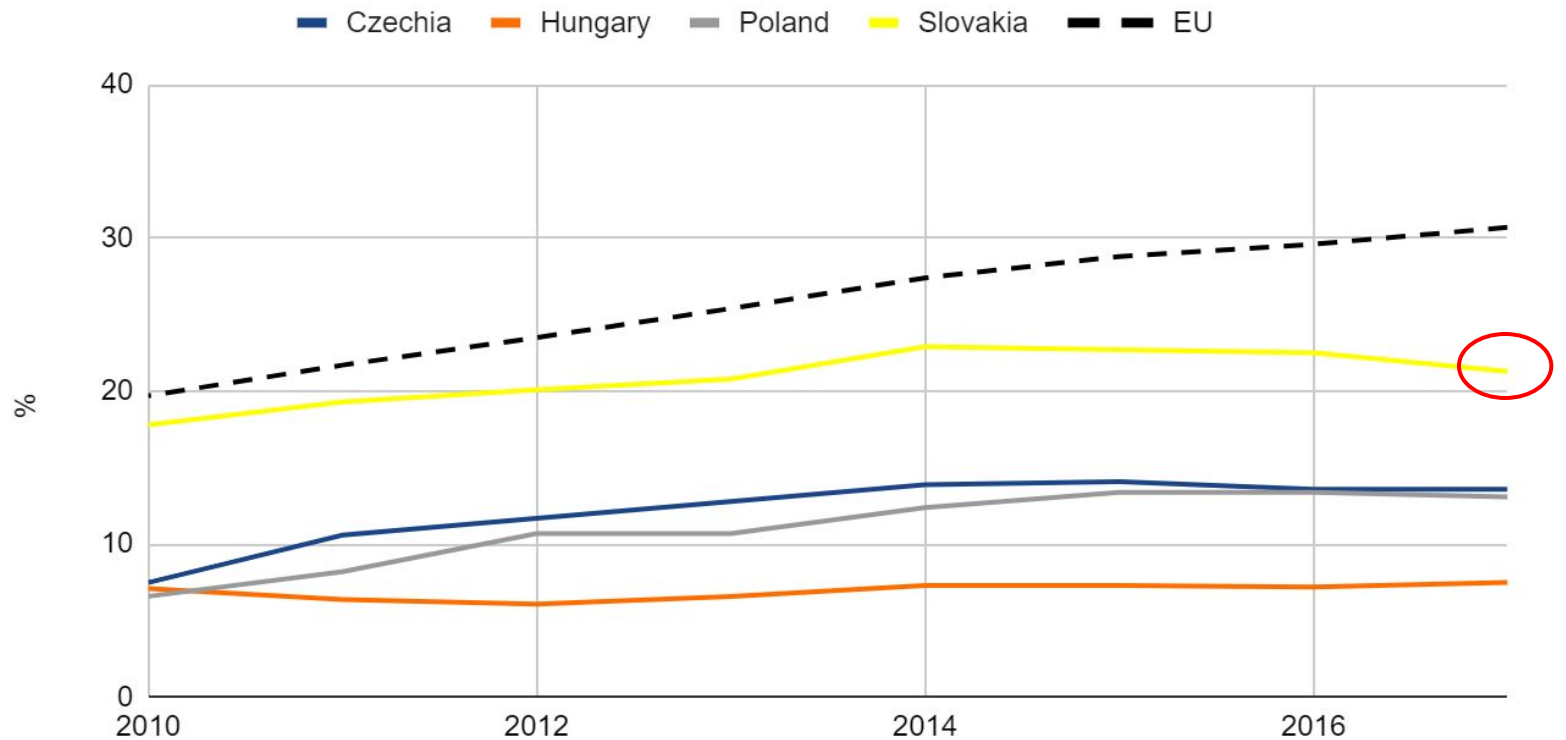




RES development

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Share of renewables in gross final electricity consumption



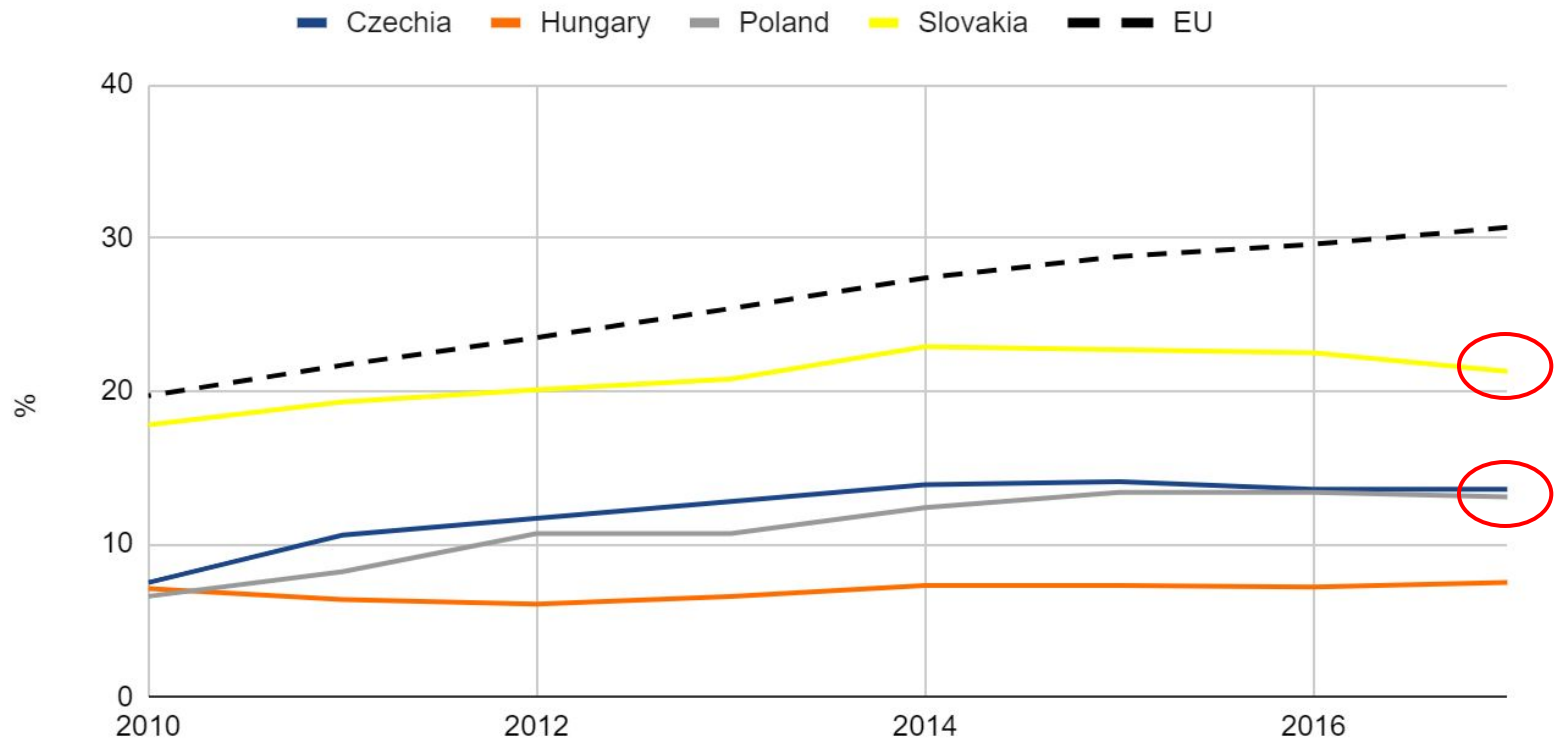
Source: Eurostat



RES development

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Share of renewables in gross final electricity consumption



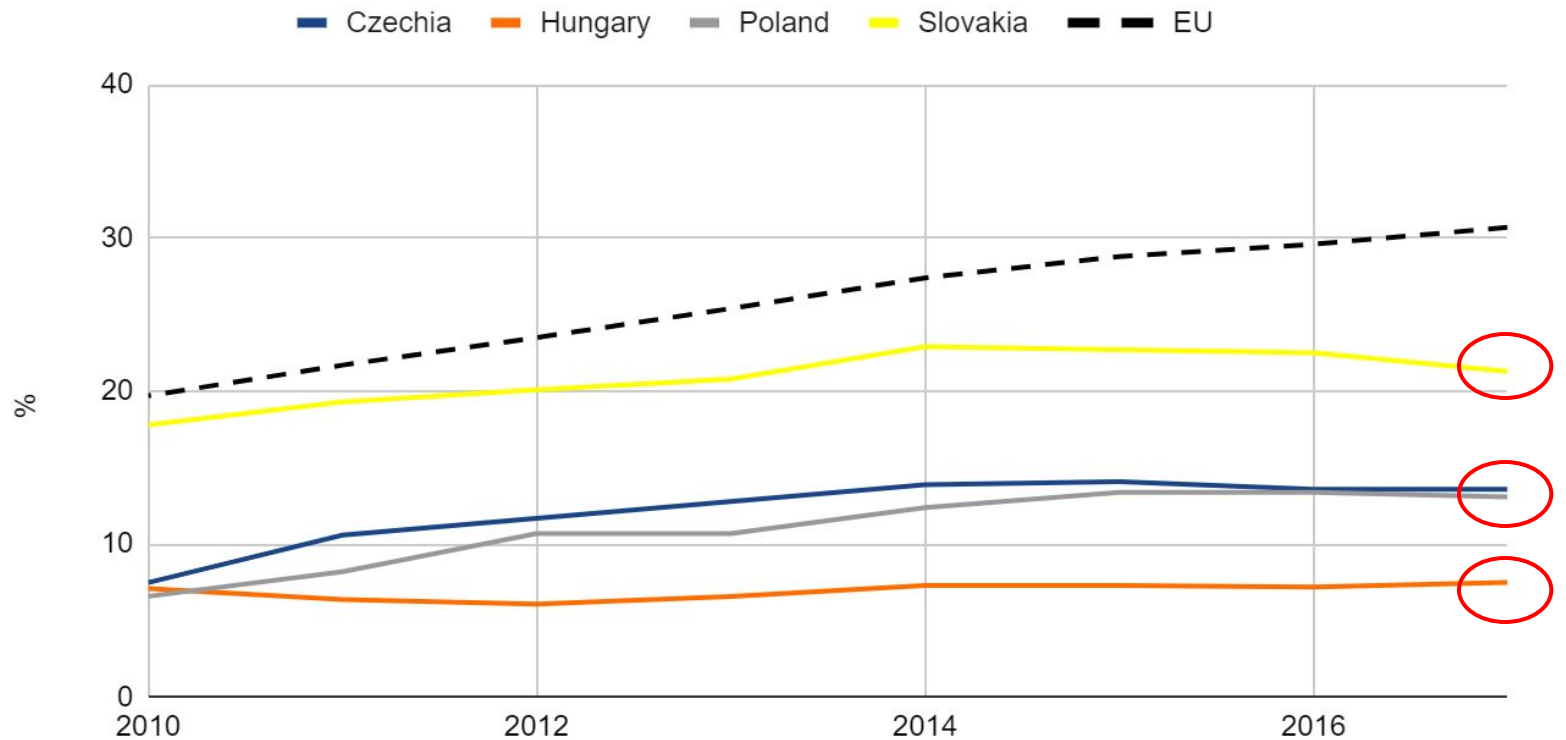
Source: Eurostat



RES development

14

Share of renewables in gross final electricity consumption



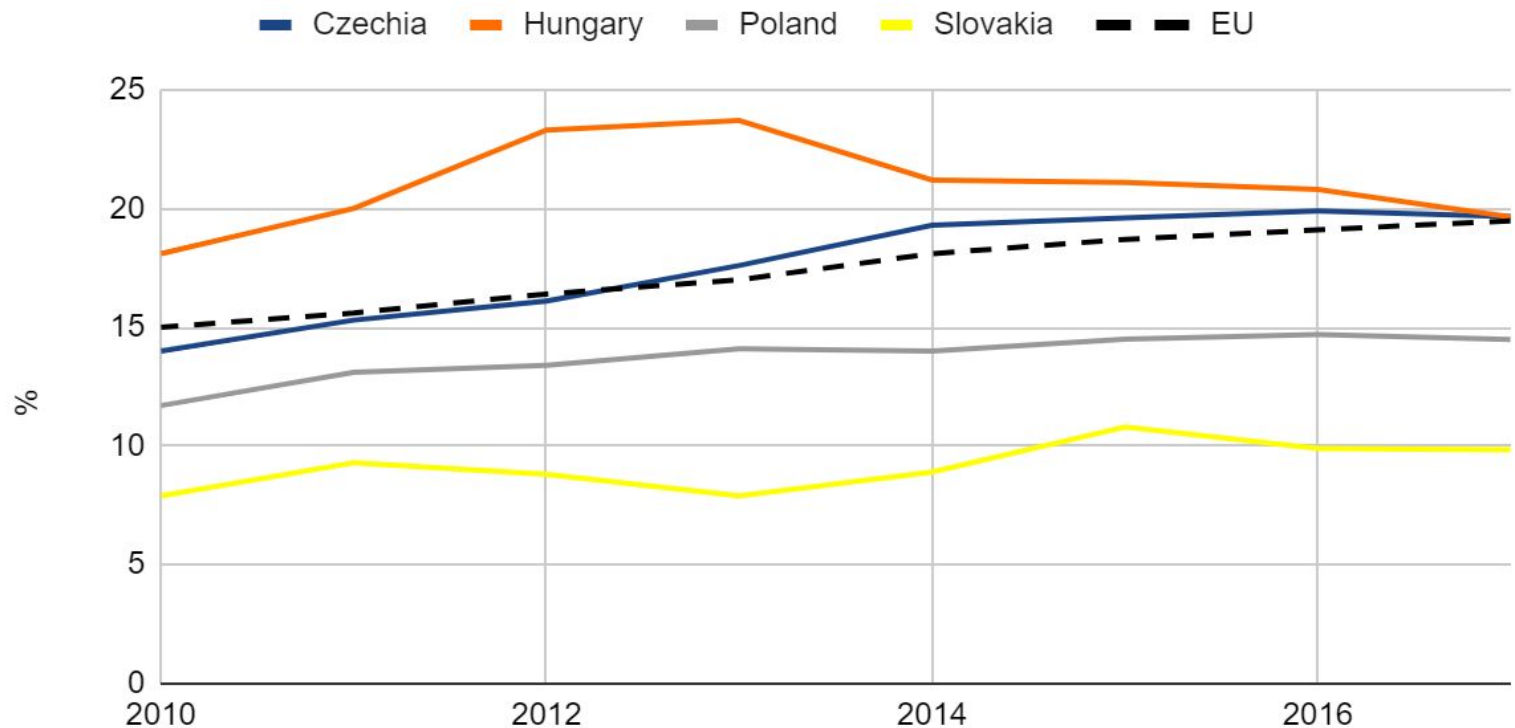
Source: Eurostat



RES development

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Share of RES in heating and cooling



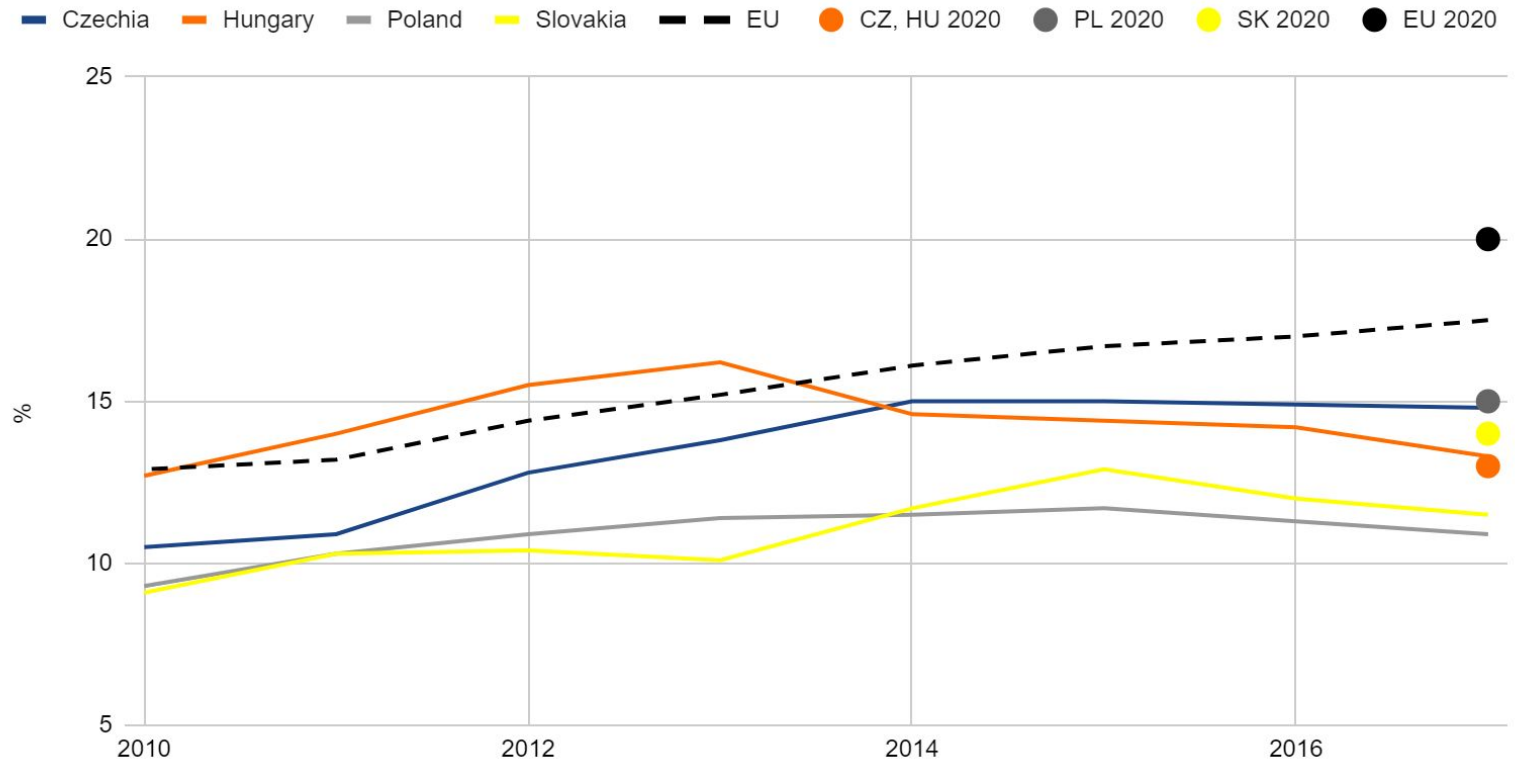
Source: Eurostat



RES development

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Share of renewables in gross final energy consumption



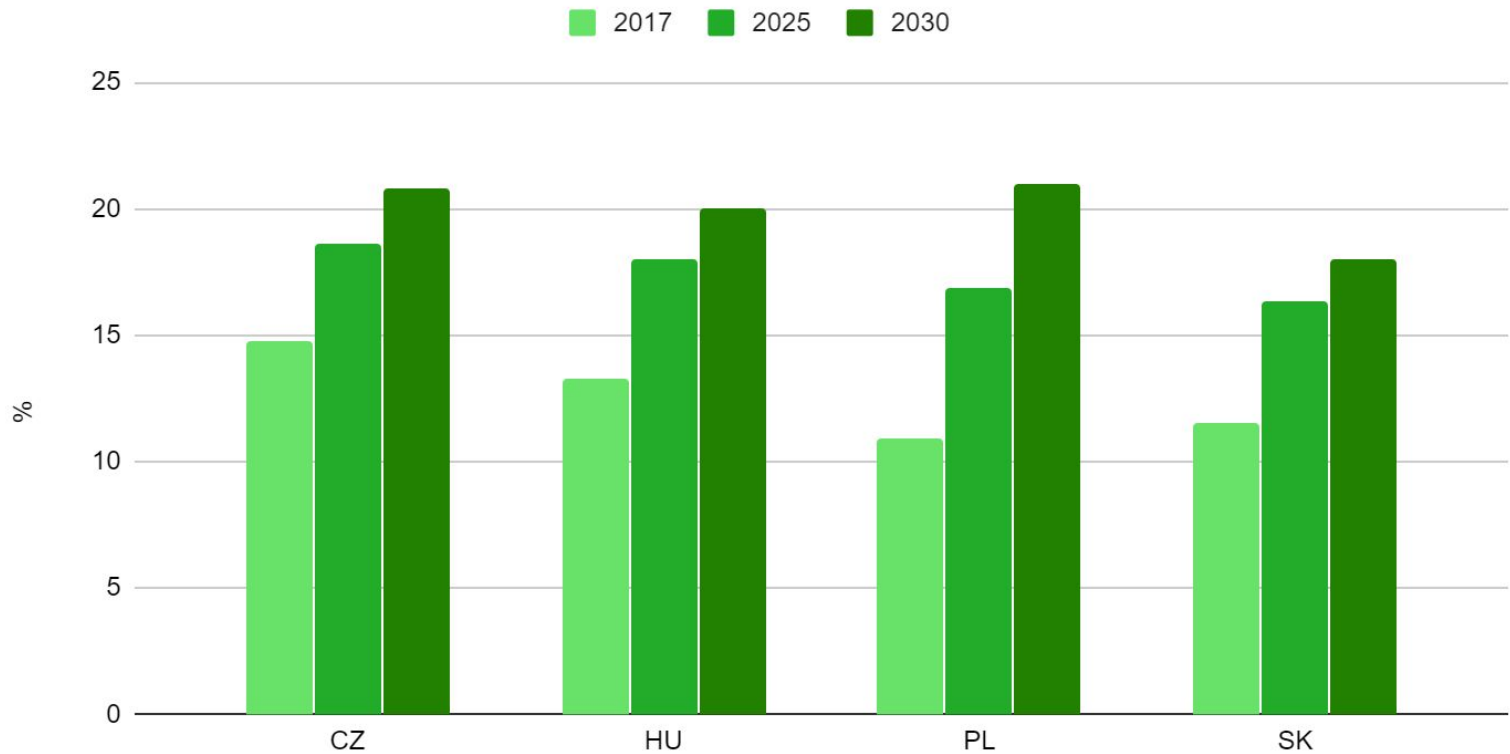
Source: Eurostat



Ambitions

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Projection of the share of RES in gross final energy consumption



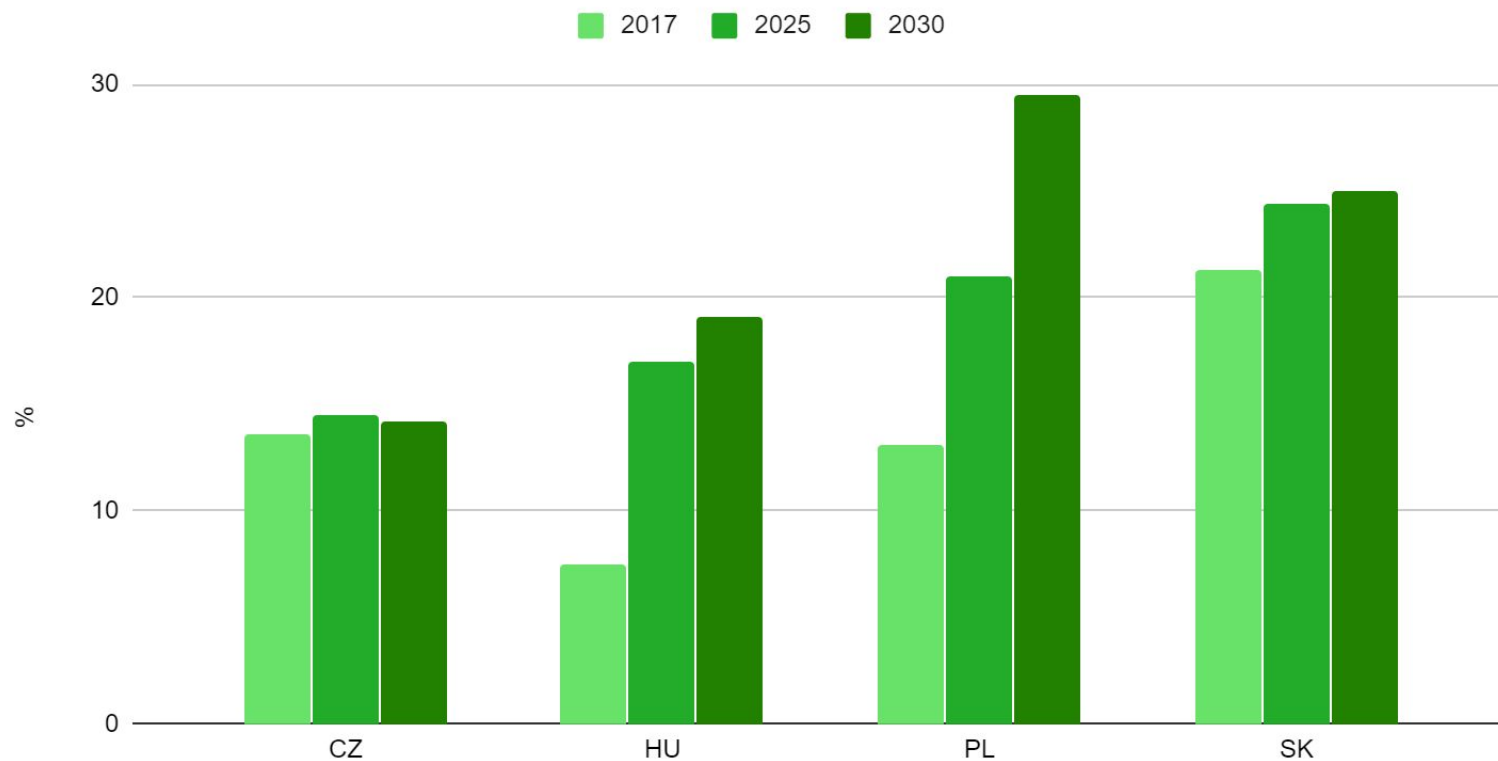
Based on the draft NECPs of Visegrad countries



Ambitions

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Projection of the share of RES in gross final electricity consumption



Based on the draft NECPs of Visegrad countries



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Thank you for your attention!

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