



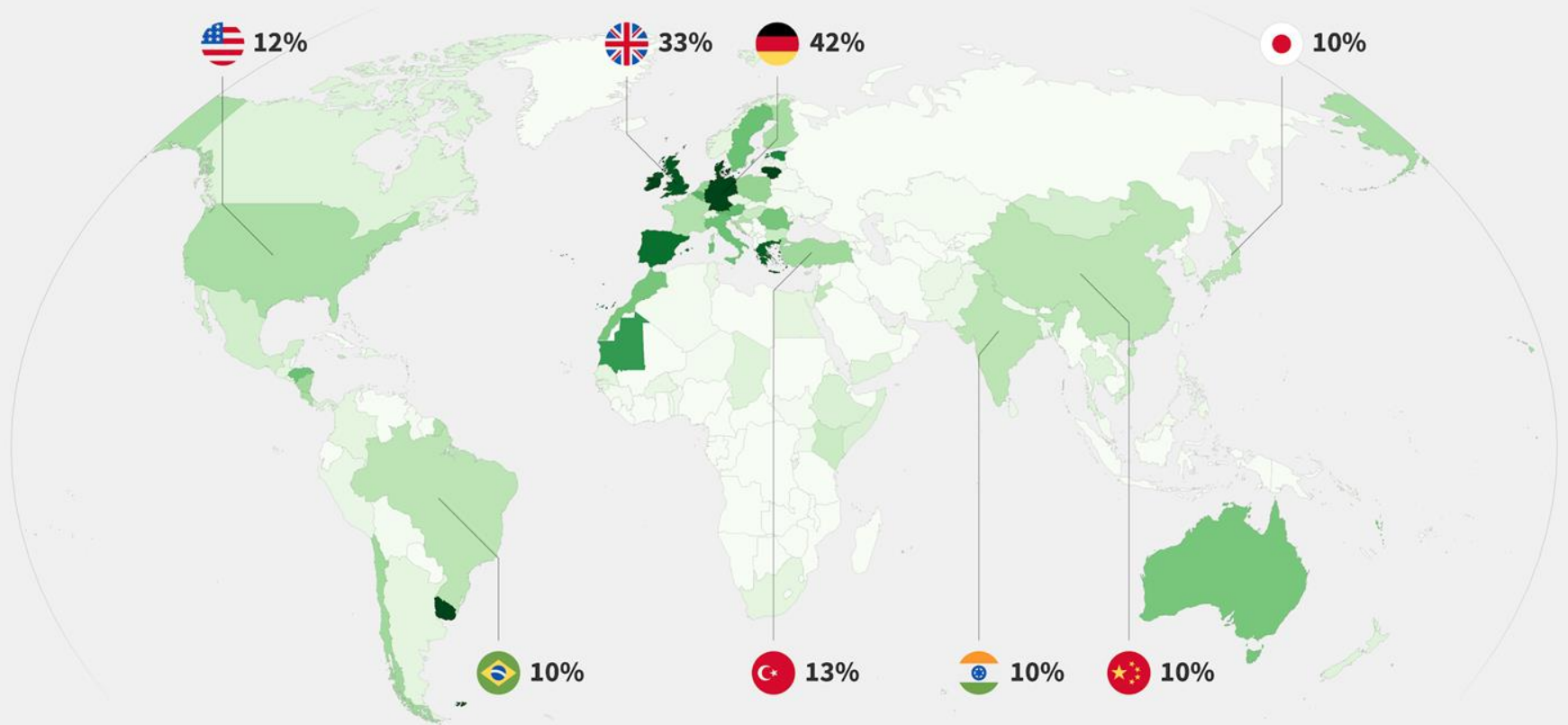
# EMBER

COAL TO CLEAN ENERGY POLICY

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# Wind and solar generate one tenth of global electricity

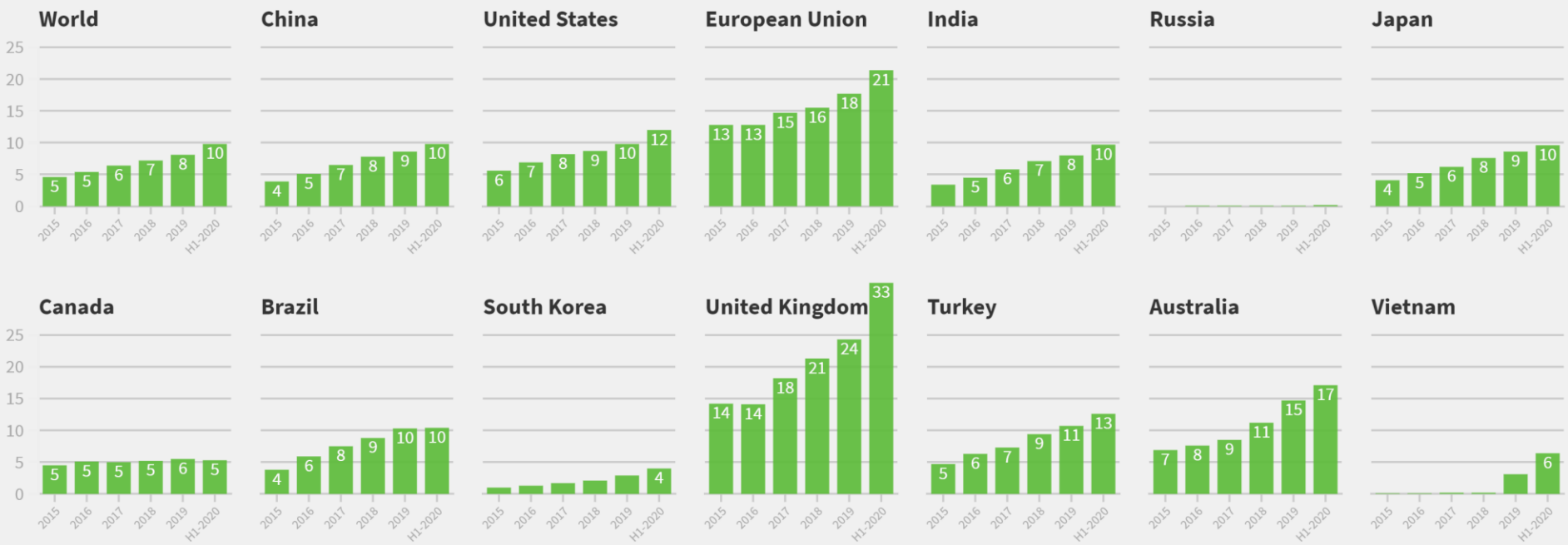
% of electricity production from wind and solar; for Jan-Jun 2020 where available else 2019\*



Jan-Jun 2020 data used for: China, United States, EU27, India, Russia, Japan, Canada, Brazil, South Korea, United Kingdom, Turkey, Australia, Chinese Taipei, Vietnam, Norway, Argentina, Chile, Bangladesh, Colombia and Peru.

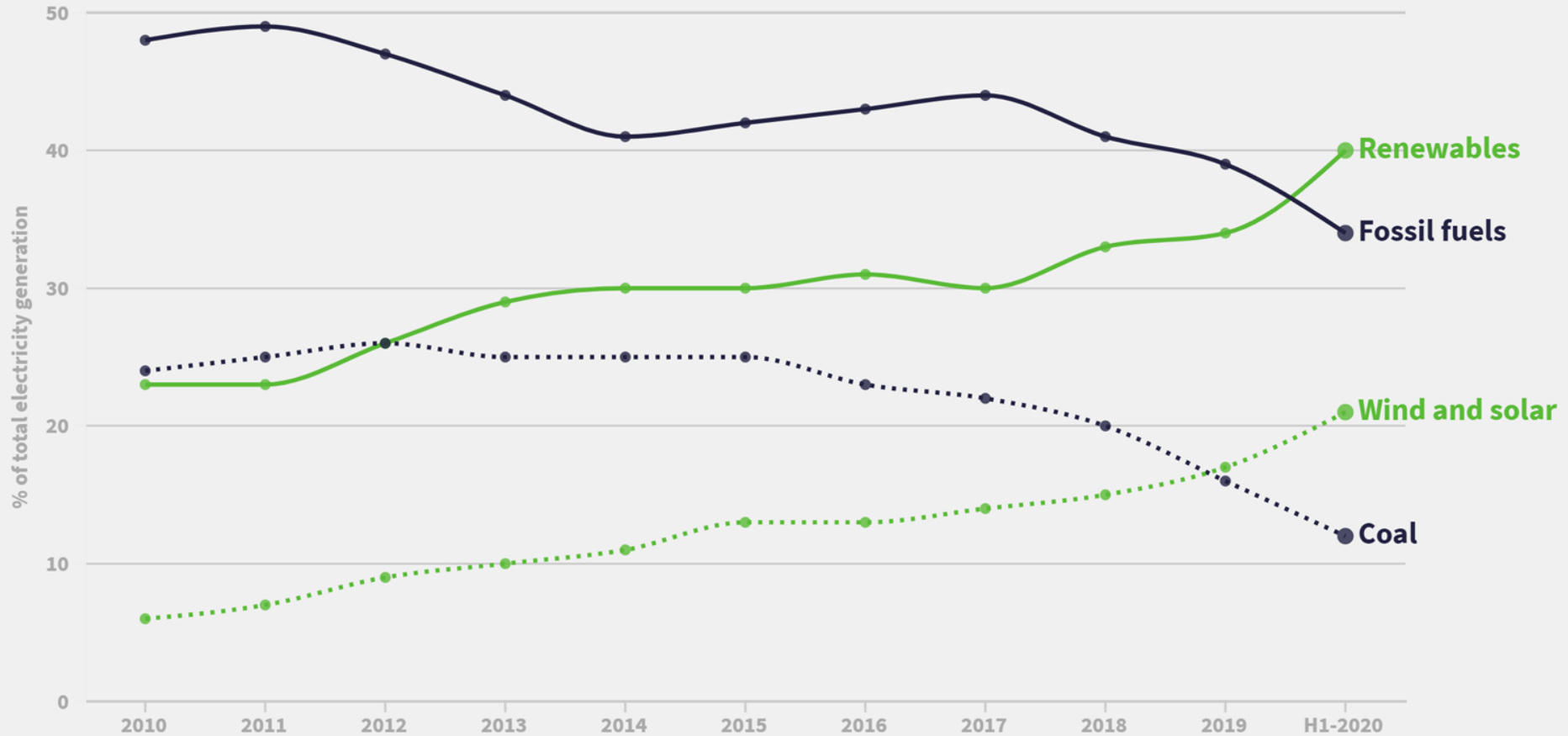
# Wind and solar share of global electricity doubled since 2015

Wind and solar as % of total generation



# Renewables beat fossil fuels

## EU-27 electricity generation



# Demand picks up across the EU

% change vs. same month last year

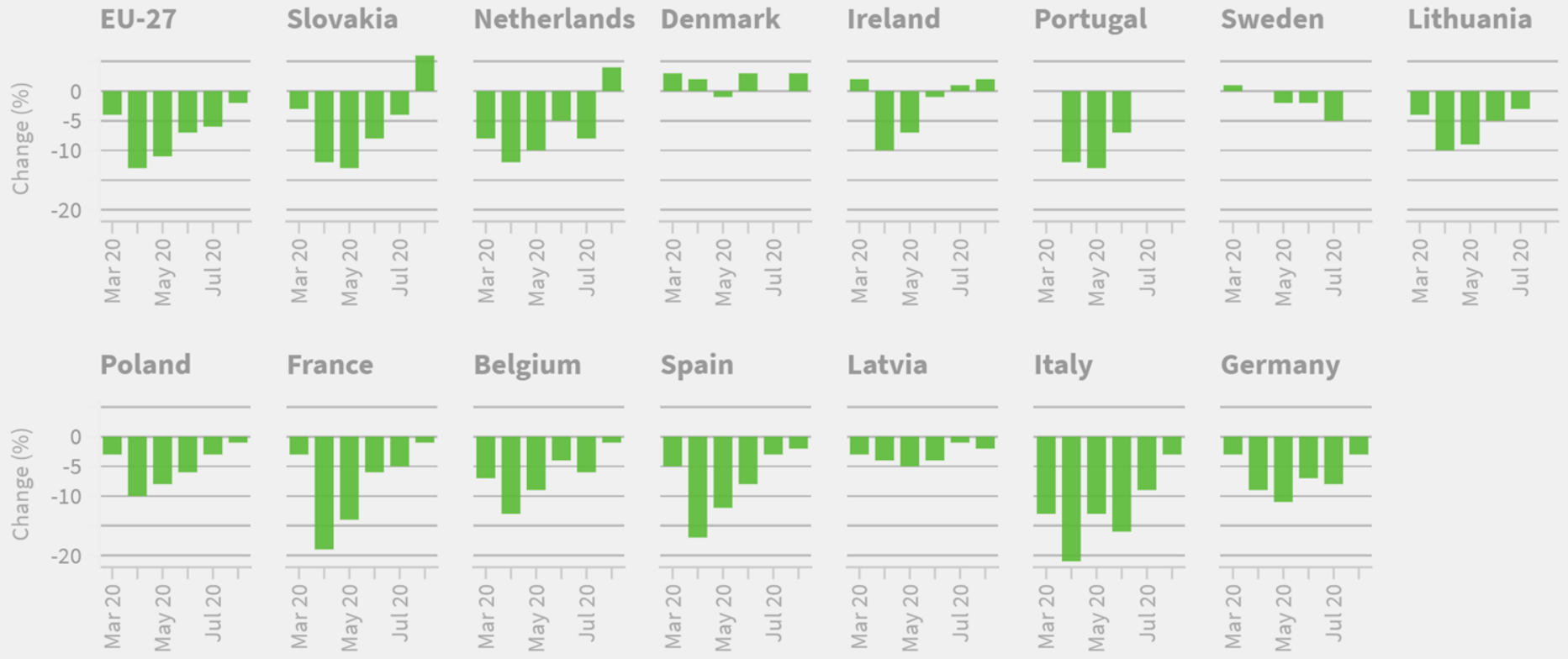
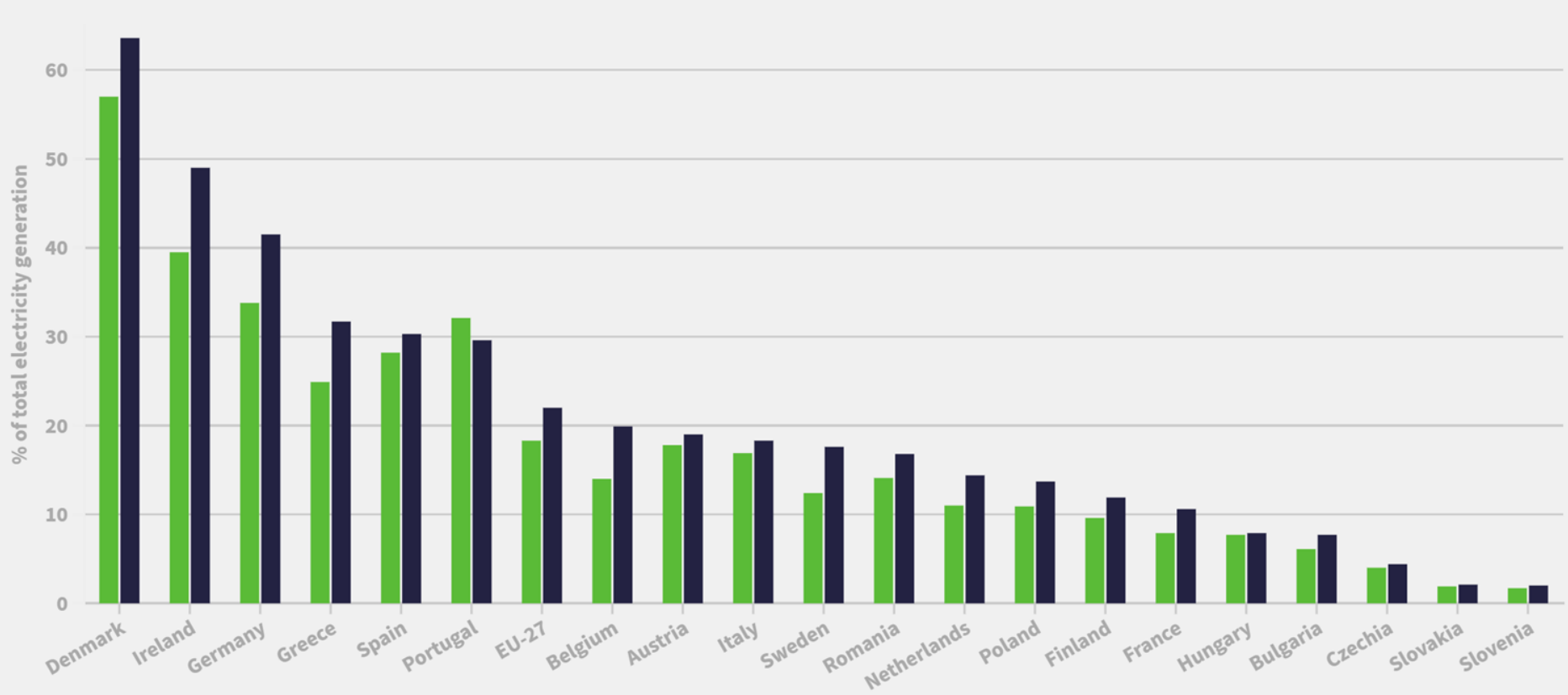


Figure includes EU-27 and the 14 member states showing the highest increases in demand in August

# New records for wind and solar

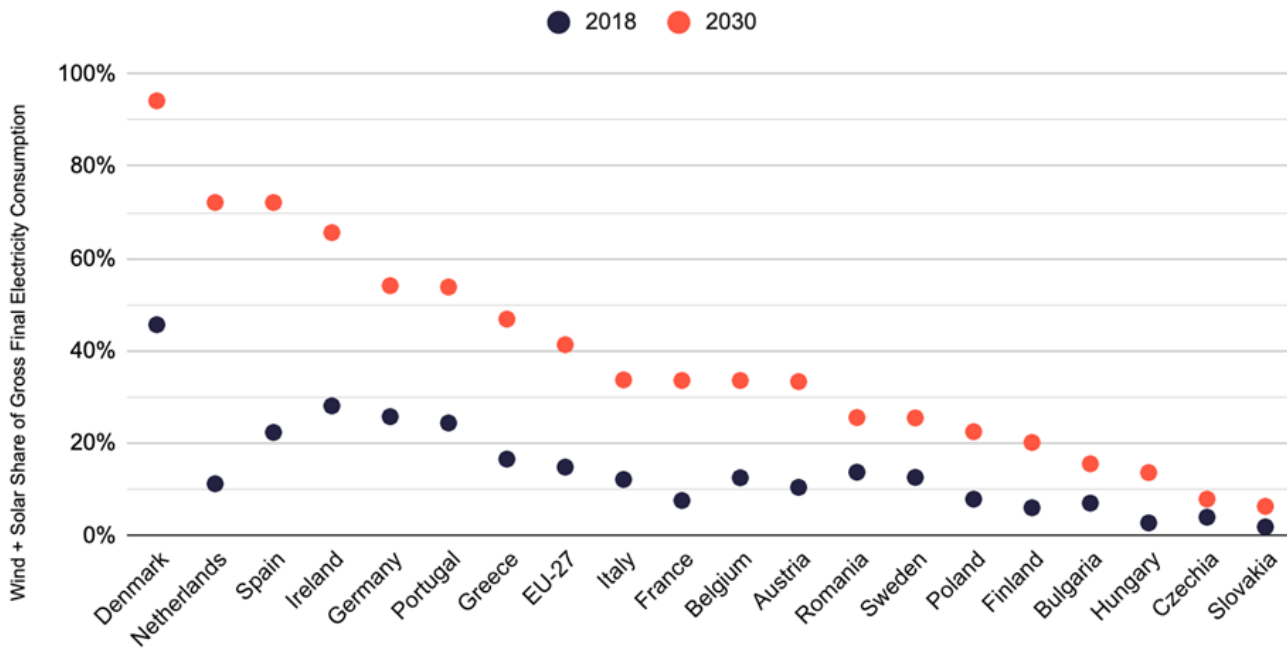
## Wind and solar electricity generation share

■ H1-2019 ■ H1-2020



## Wind and solar remain a minor part of the electricity mix in 2030 across eastern Europe

Wind and solar's combined share of electricity consumption [%]

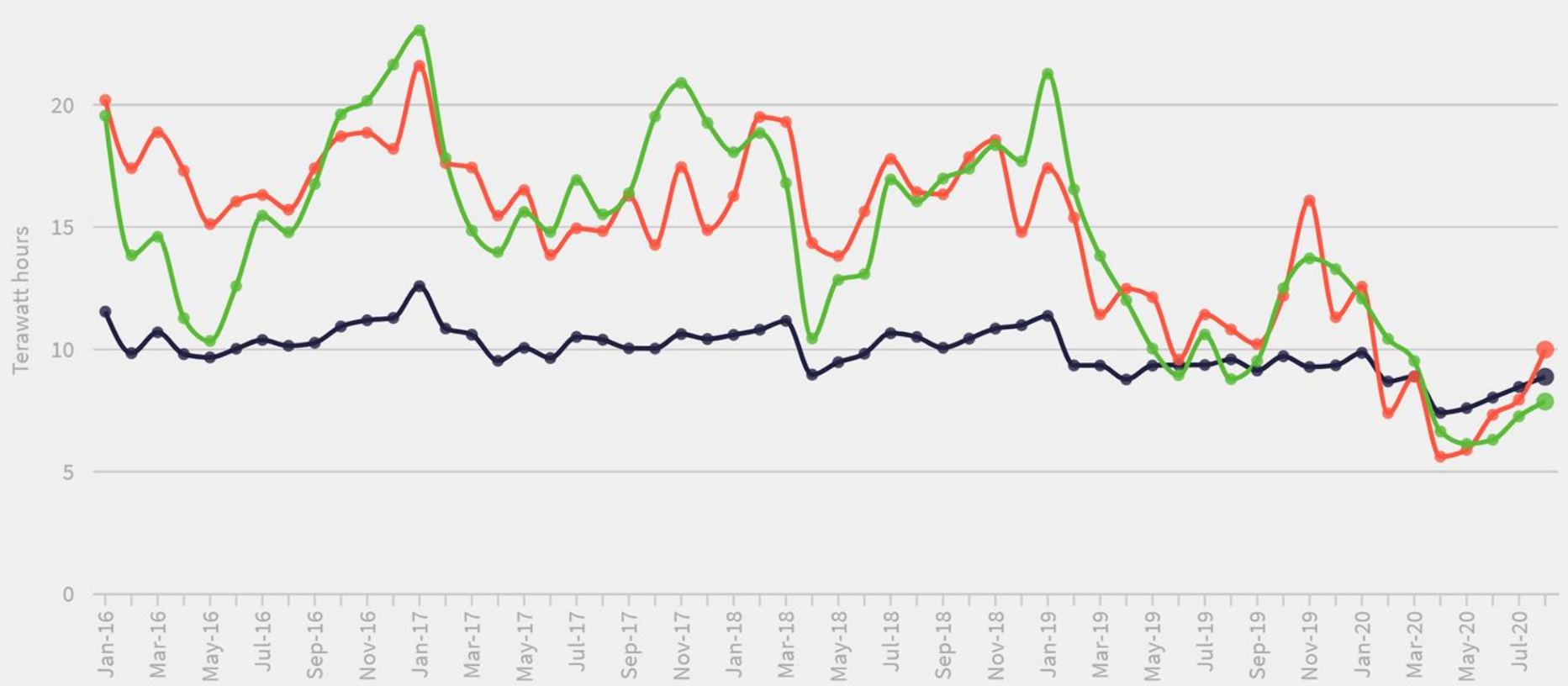


Source: Ember analysis of the National Energy & Climate Plans (NECPs), Ember calculations. The 19 countries displayed account for ~ 97% of EU-27 consumption.

# Germany regains title as top EU coal generator

Coal generation (hard coal and lignite combined)

Poland Germany Remaining 25 countries of EU-27

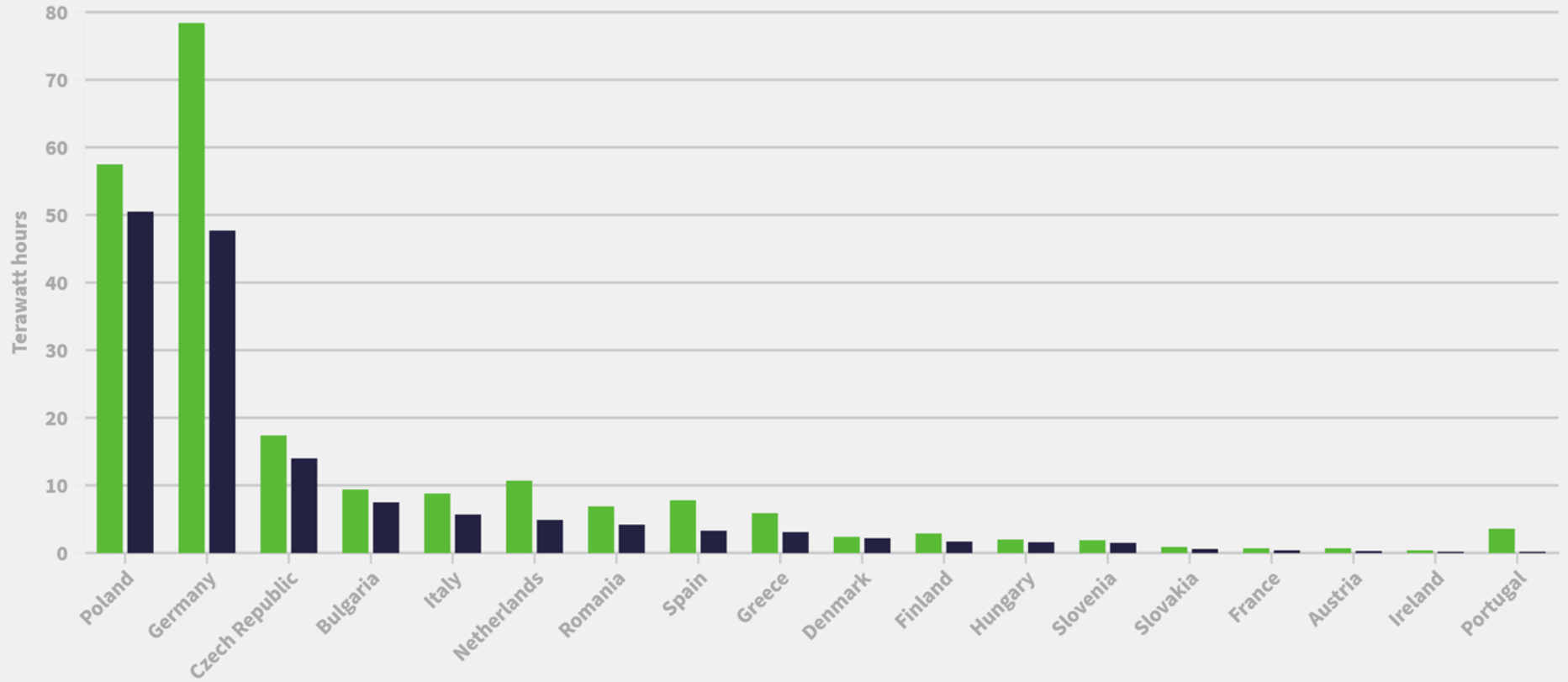




# Europe's coal generation continues to collapse

EU-27 coal generation (hard coal + lignite)

■ H1-2019 ■ H1-2020

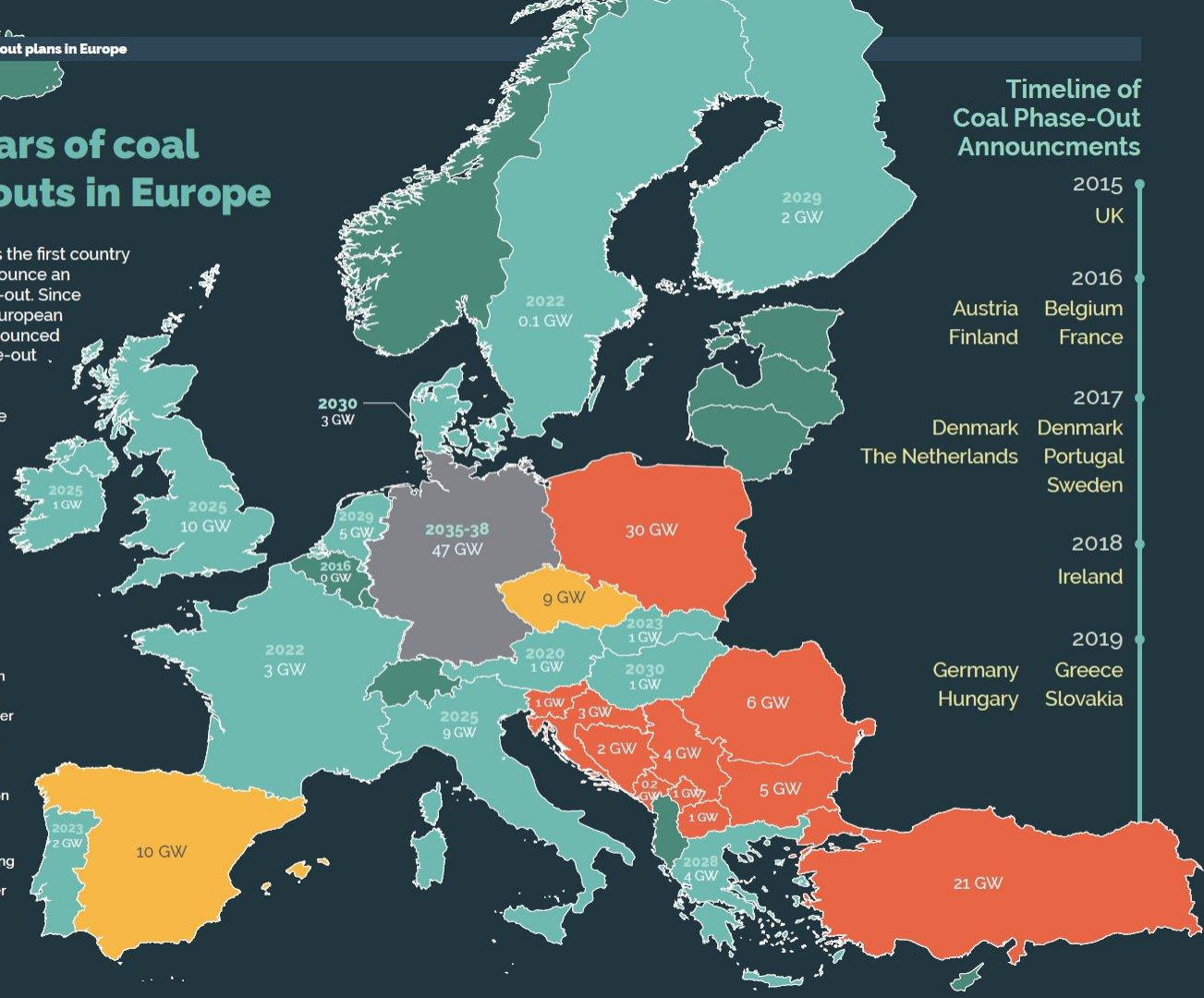


# Four years of coal phase-outs in Europe

In 2015, the UK was the first country in the world to announce an explicit coal phase-out. Since then, a further 14 European countries have announced that they will phase-out coal generation.

These countries are on a journey. One country, Belgium, has already phased out coal, but for most countries this journey will take a decade, or longer.

- No Coal Generation
  - Phase-out coal by 2030 or earlier
  - Phase-out coal only after 2030
  - Phase-out under discussion
  - No phase-out discussion
- GW** Current operating capacity of coal-fired power plants in gigawatts (Oct 2019)

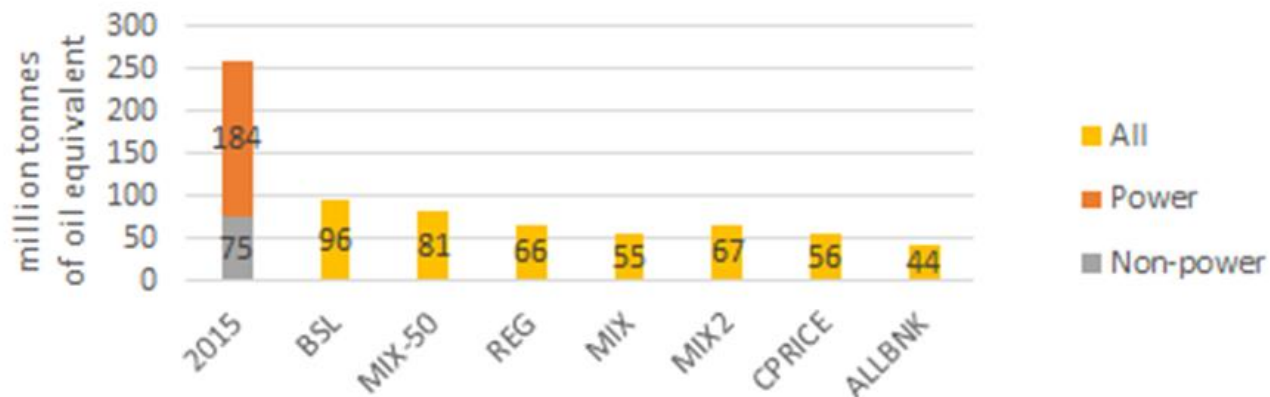


## Timeline of Coal Phase-Out Announcements

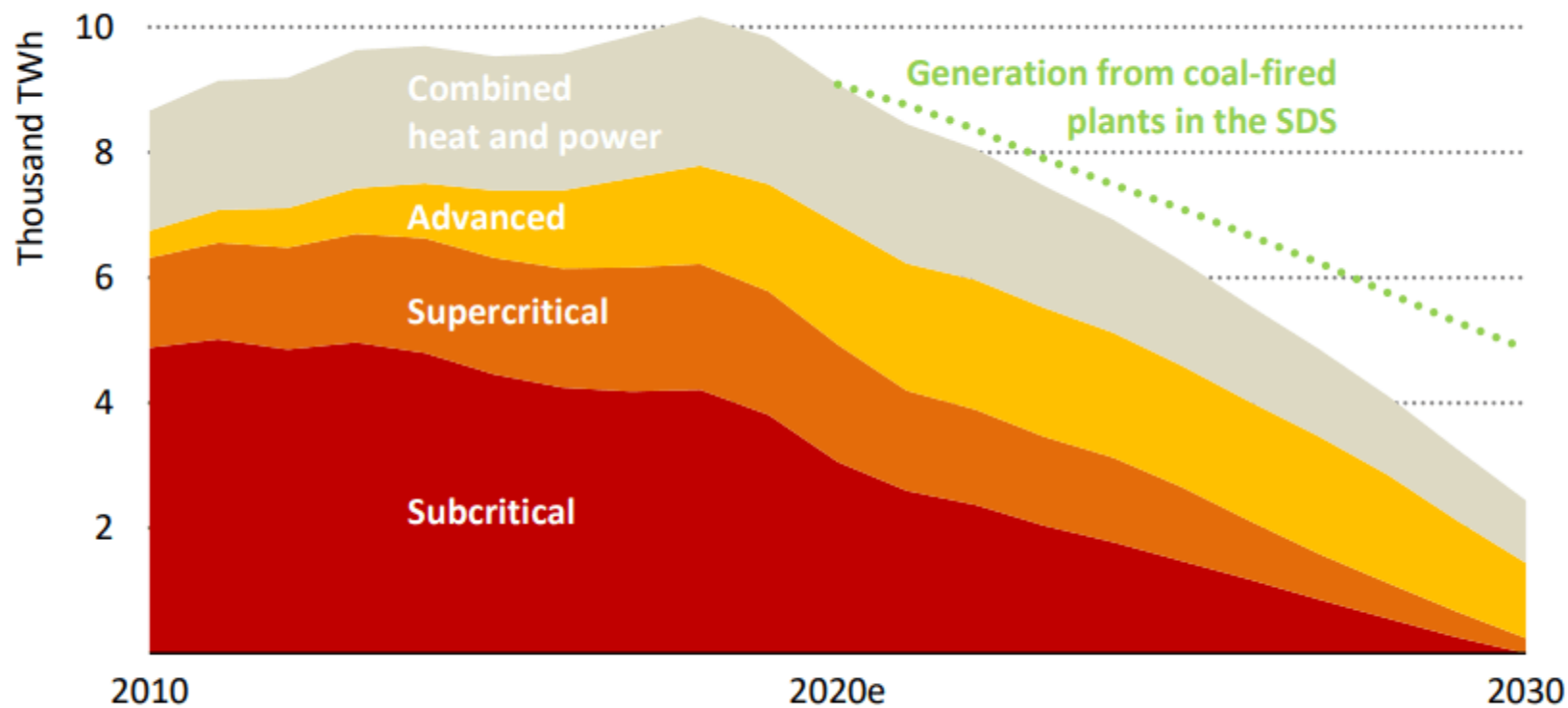


## Coal consumption

Gross Inland Consumption of Solid Fuels (from table 28)  
2015 figures from EUROSTAT, added by Ember



**Figure 4.7** ▸ Coal-fired electricity generation by technology in the NZE2050



*There is a major reduction in coal-fired generation and related CO<sub>2</sub> emissions in the NZE2050, with the use of the least efficient coal power plants falling to zero by 2030*