



Embassy
of the Federal Republic of Germany
Washington



Energy Reform in Germany: Progress or Stagnation?

2019 NARUC Winter Policy Summit, February 10, Washington DC

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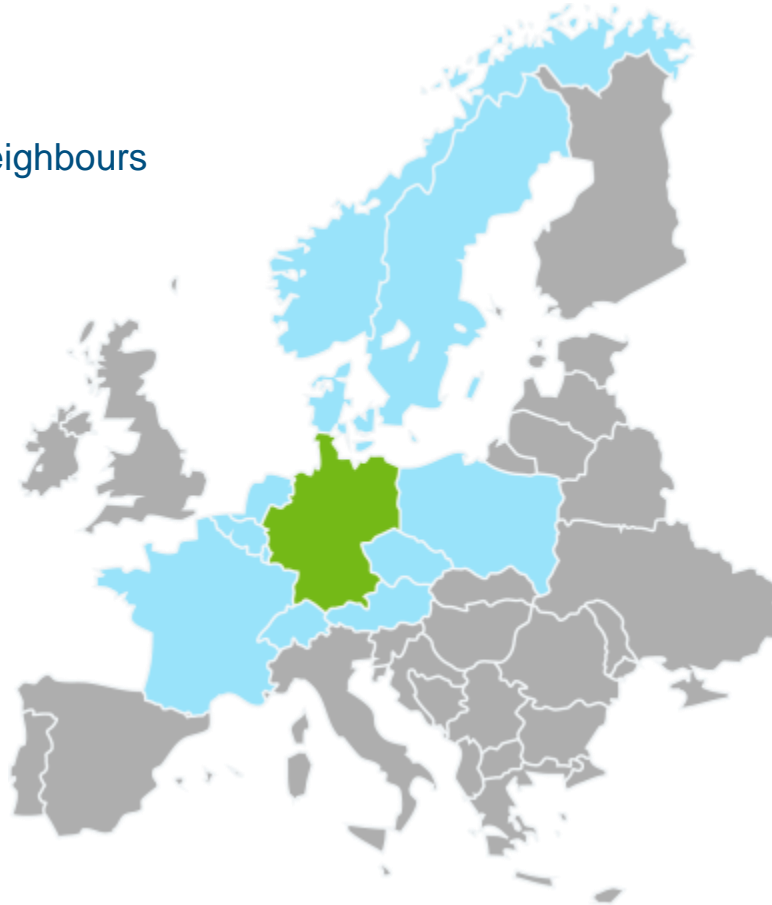
Energy, Trade, Digital Economy

Embassy of the Federal Republic of Germany



Germany's position in the energy system in Europe

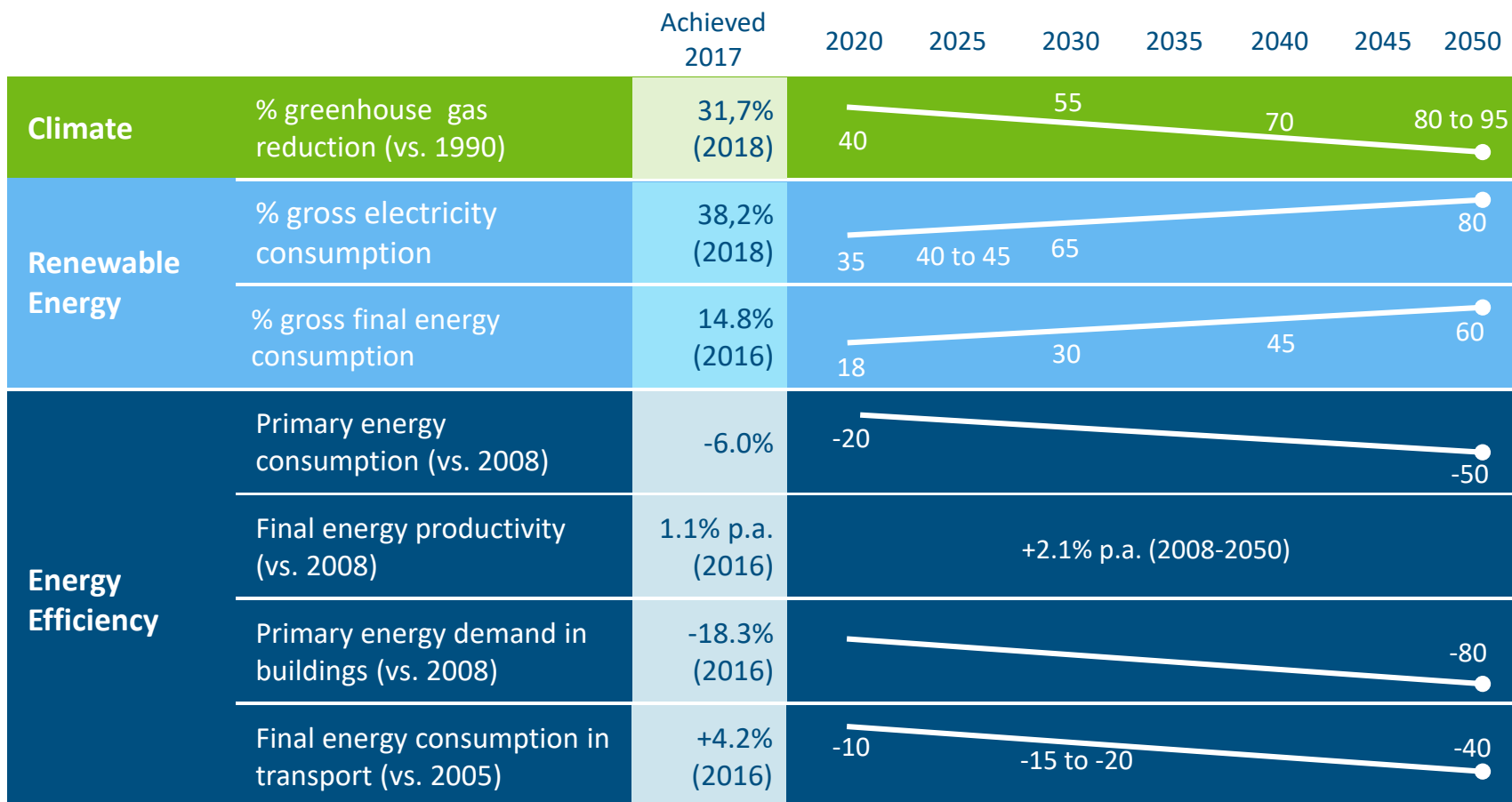
■ Electrical neighbours



Germany at a glance

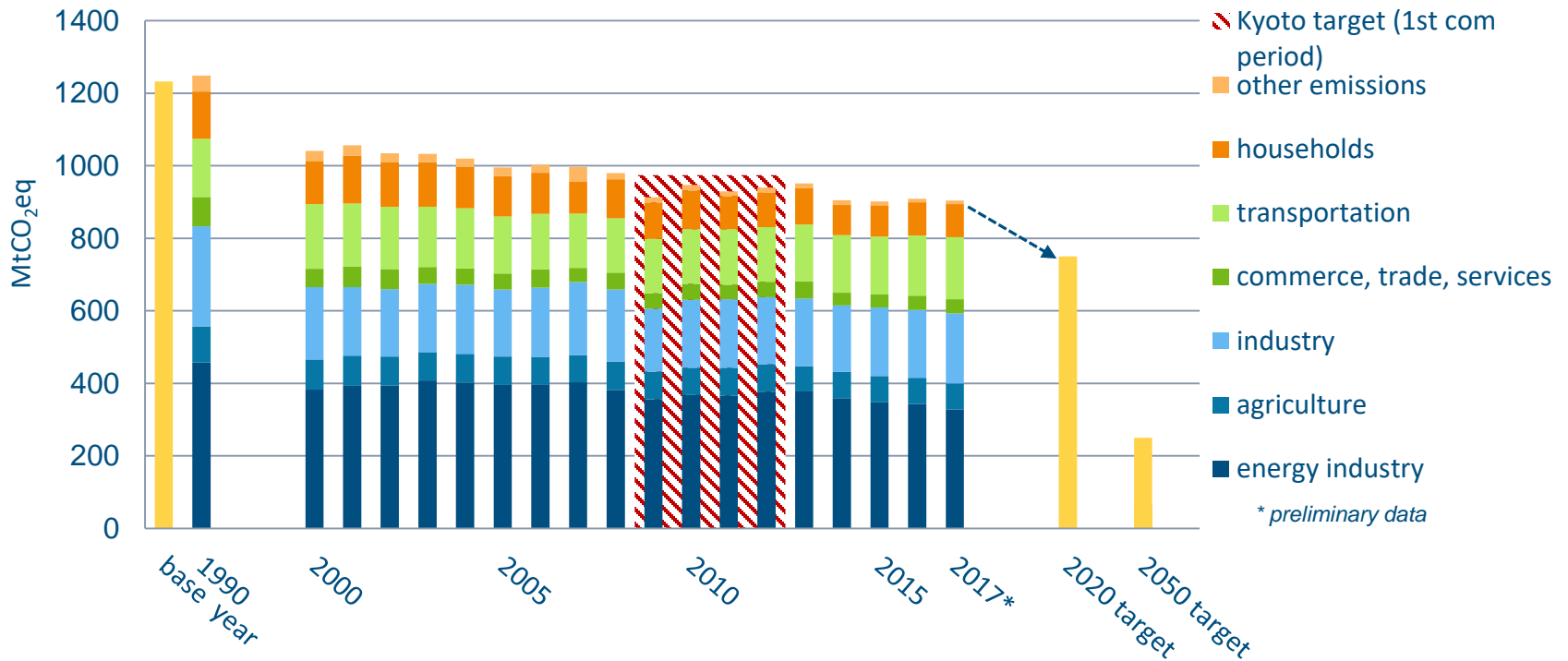
- Population: 82 million
- Largest economy in Europe, 4th largest in the world, GDP-growth 2,2% (2016), 1,5% (2017)
- Gross electricity consumption 2018: ca. 600 TWh (flat)
- Primary energy consumption 2018: 12.900 PJ (2016: 13.383 PJ)

The *Energiewende* is Germany's long-term energy and climate strategy



Source: Ecofys 2018 based on BMWi 2016, UBA 2018, AGEb 2018

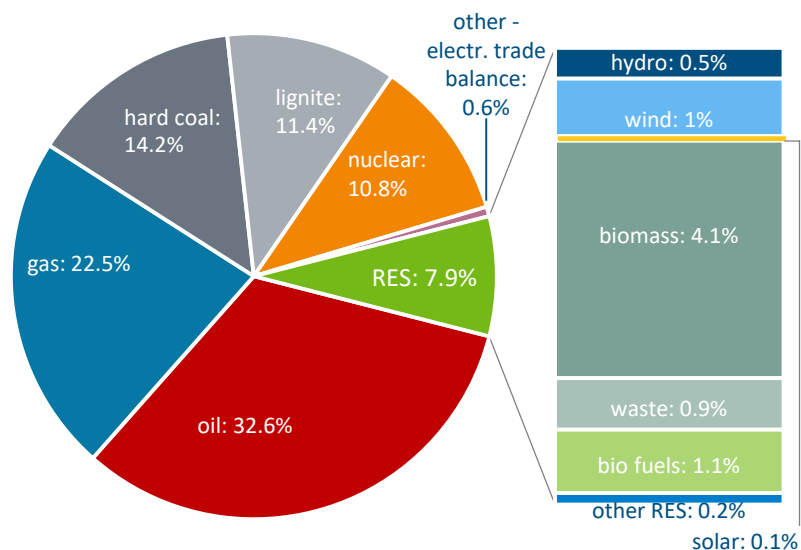
Much progress but more action needed to achieve a 40% reduction by 2020 and a 55% by 2030



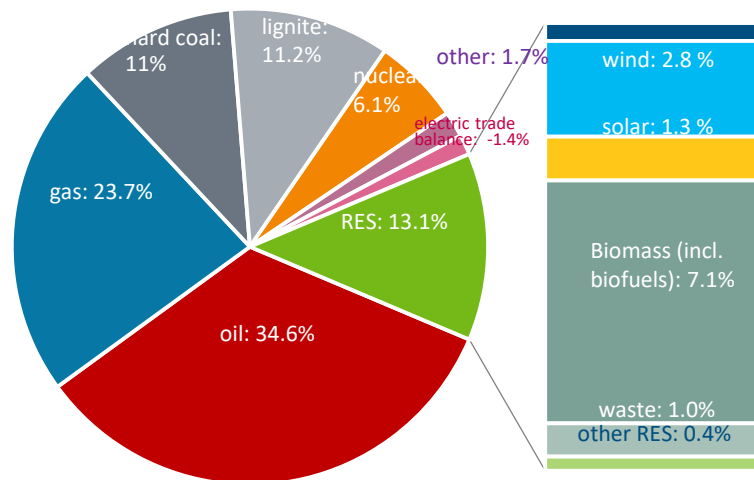
Source: UBA 2017, BMU 2018

Wind, solar PV and biomass have driven the growth of renewables in German primary energy consumption

2007 total: 14,197 PJ

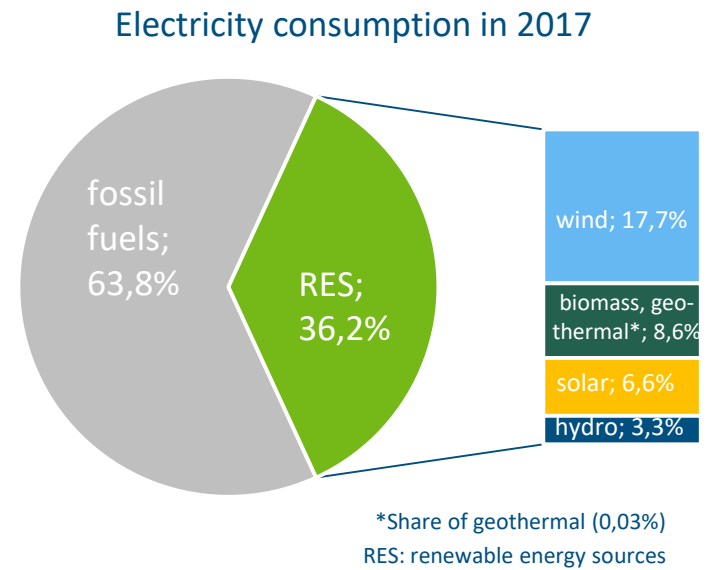
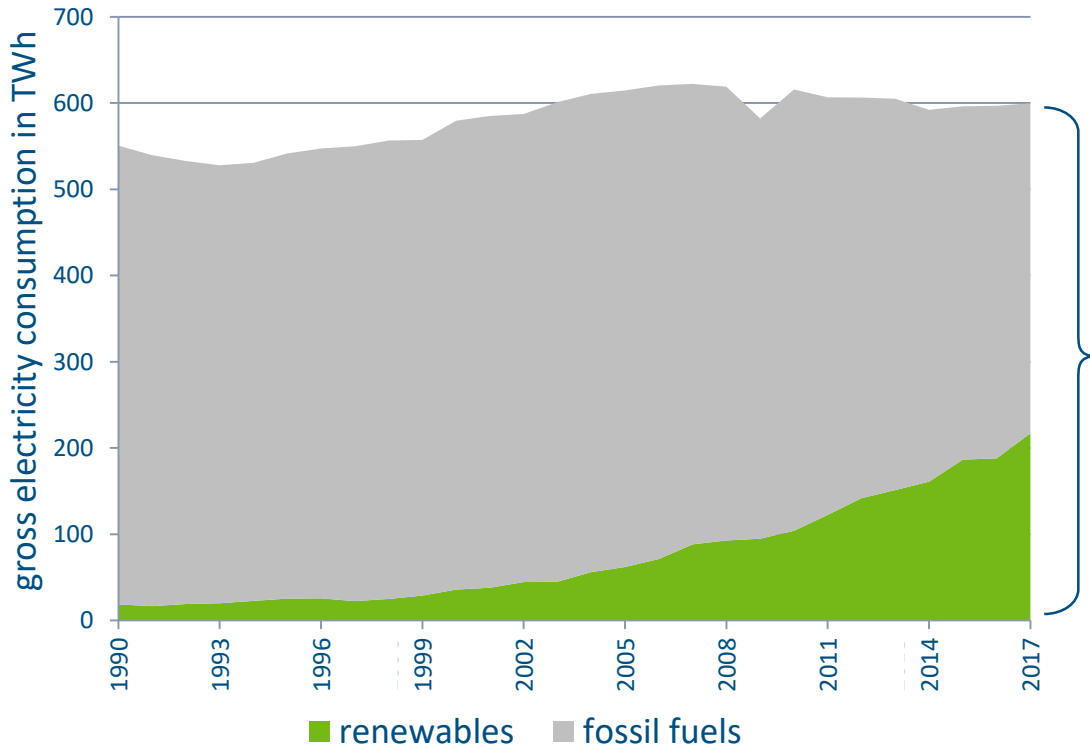


2017 total: 13,525 PJ
(2018: 12,900 PJ)



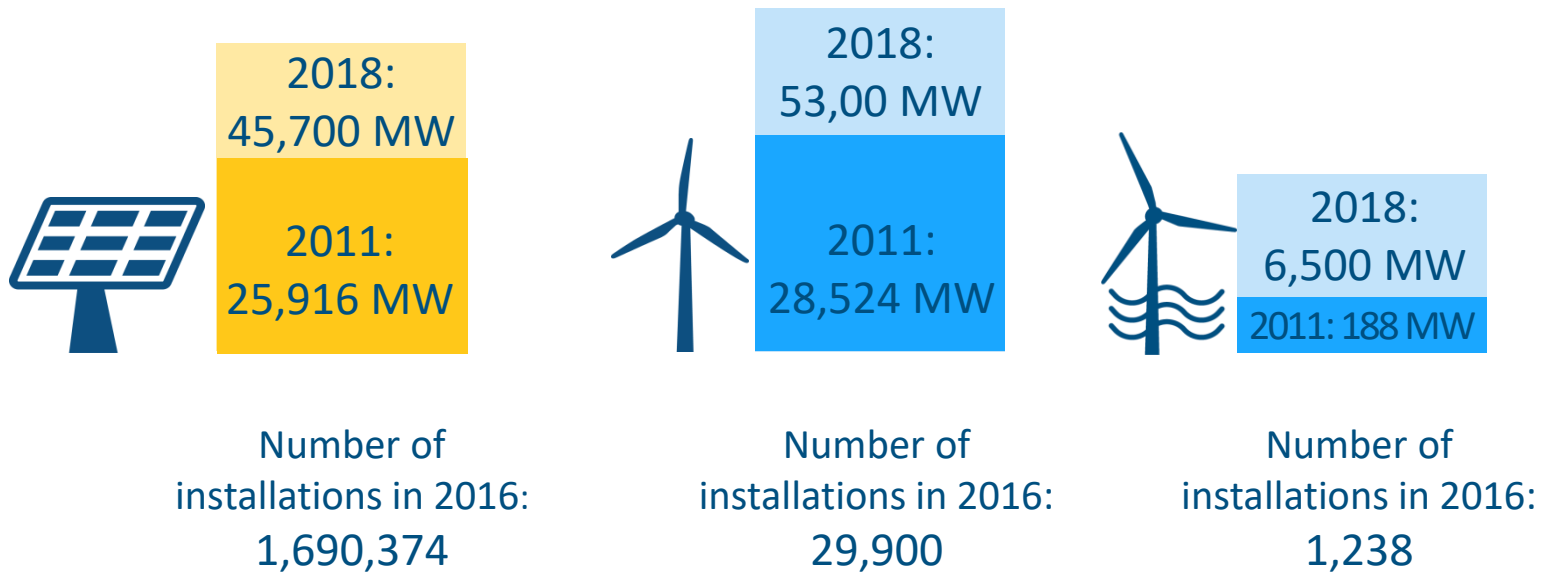
Source: Ecofys 2018 based on AGEb 2017

GER renewables share reached 36,2% in 2017, a record of 38,2% in 2018, goal or 2030: 65%



Source: Ecofys 2018 based on BMWi 2018, AGEF 2018, UBA 2018

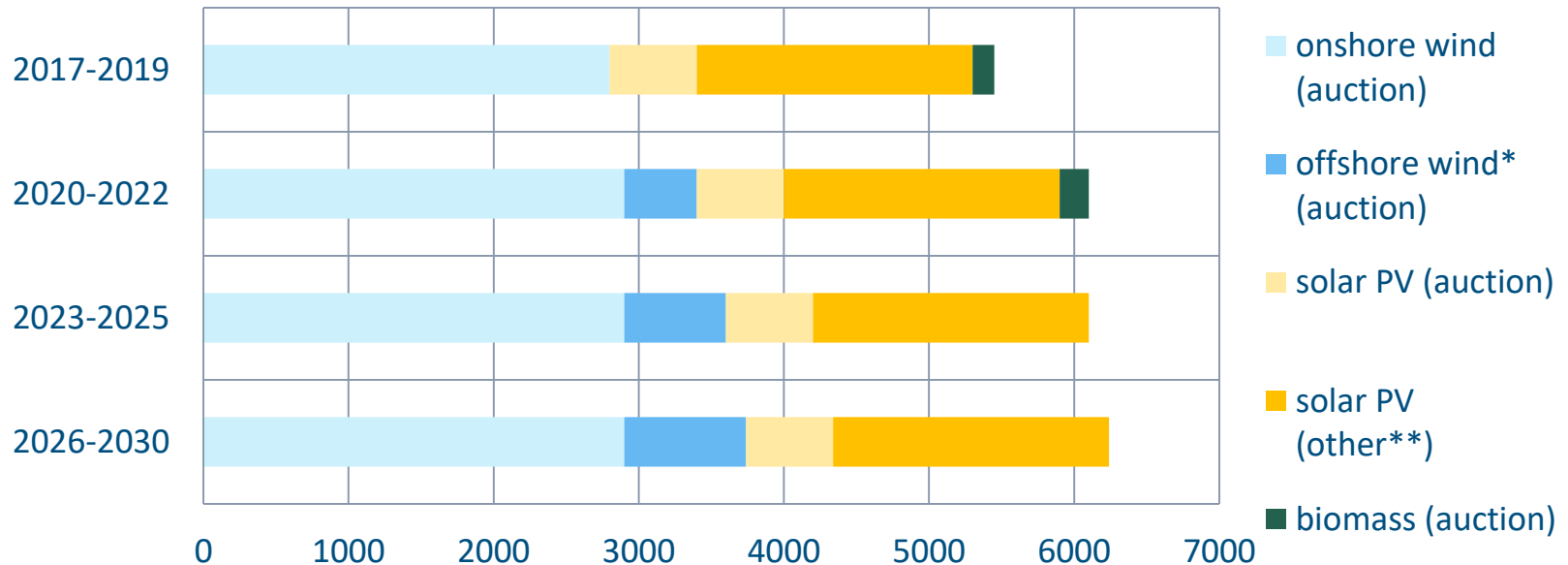
Wind and solar capacities are steadily growing



Source: Ecofys 2018 based on AGEE-Stat 2018, BNetzA 2016, BSW Solar 2017, Deutsche Windguard 2017

Specific capacity addition targets make deployment of renewables more plannable

Annual capacity addition targets per technology in MW



*500 MW to be added annually in 2021 and 2022 (not in 2020)

**EEG 2017 sets out 2500 MW of annual brutto capacity expansion. 600 MW are allocated via auctions, 1900 MW via administrative FIT/FIP

Source: Ecofys based on BMWi 2016 and EEG 2017

Plans for a „Coal Phase-out“ until 2038

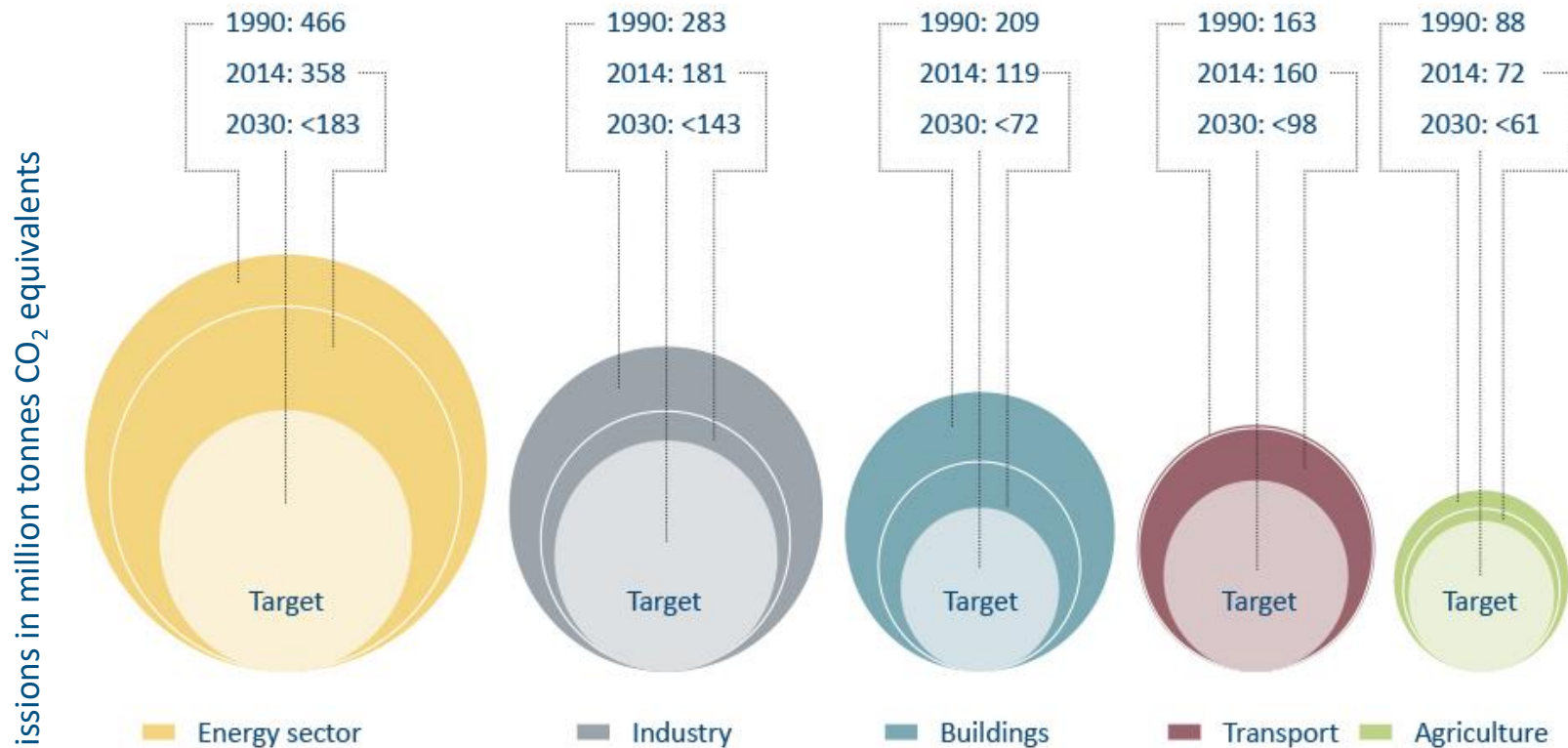
government's high level advisory board has proposed (Feb. 1):

- phase out of coal fired power generation (now: 42,6 GW) until end of 2038, possibly until 2035 (until 2022: - 12 GW; 2023 to 2030: - 13,1 GW, rest thereafter), monitoring 2023, 2029, 2032)
- compensation for utilities; subsidies for conversion to gas.
- structural aid for affected regions, job training, etc.
- some estimate cost of 100 bln € (app. \$ 88 bln.) over 20 years.
- CO2 emissions in power sector go down from 350 to below 183 Mio. t by 2030

Government is now to consider the proposal and to put forward draft law in 2019.

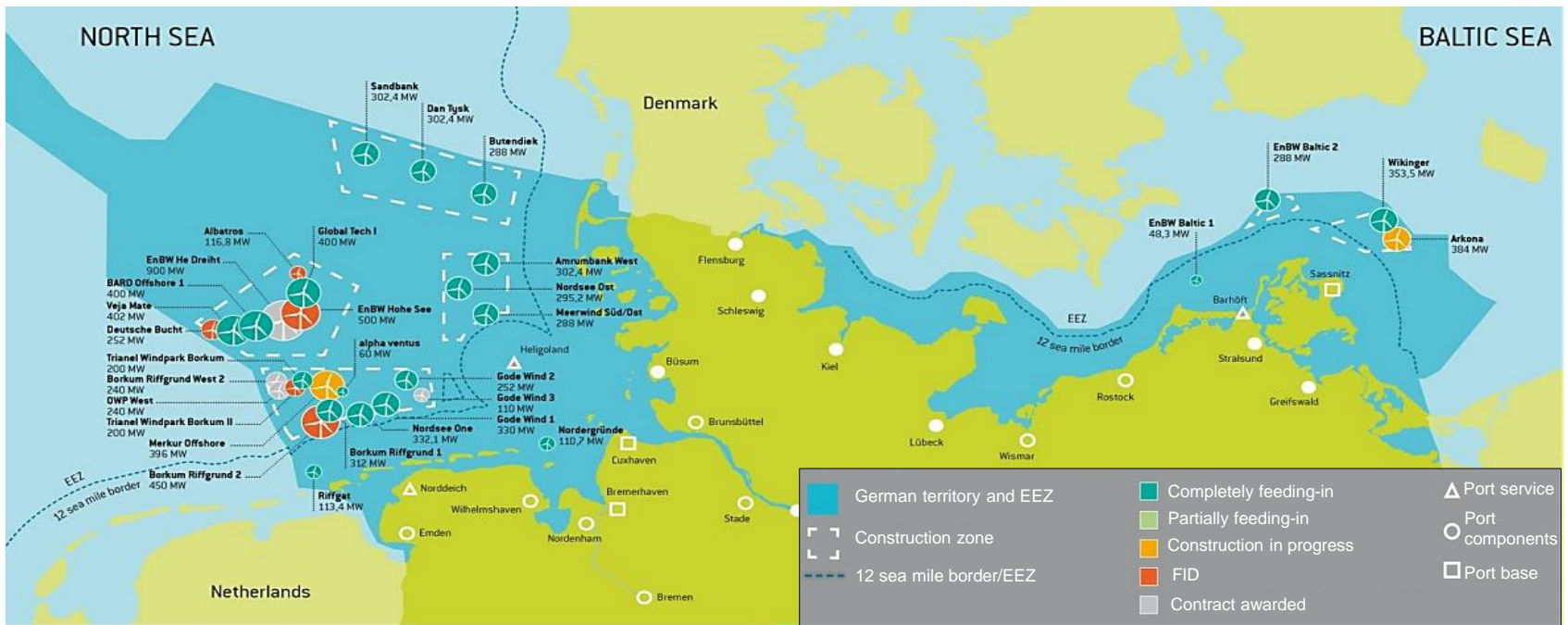
BACK-UP

The Climate Action Plan 2050 defines Germany's first sectoral emission targets for 2030



Total emission target 2030: < 562 million tonnes of CO₂ equivalent

Offshore wind capacities in the North and Baltic Seas continue to expand



Offshore Wind
Figures for Germany

In operation
(31.12.2017)
5,387 MW

Electricity generation
in 2017*
17.9 TWh

Targets

2020	2030
6.5 GW	15 GW

Source: Ecofys based on Stiftung Offshore Windenergie 2018, AGEF 2017, EEG 2017