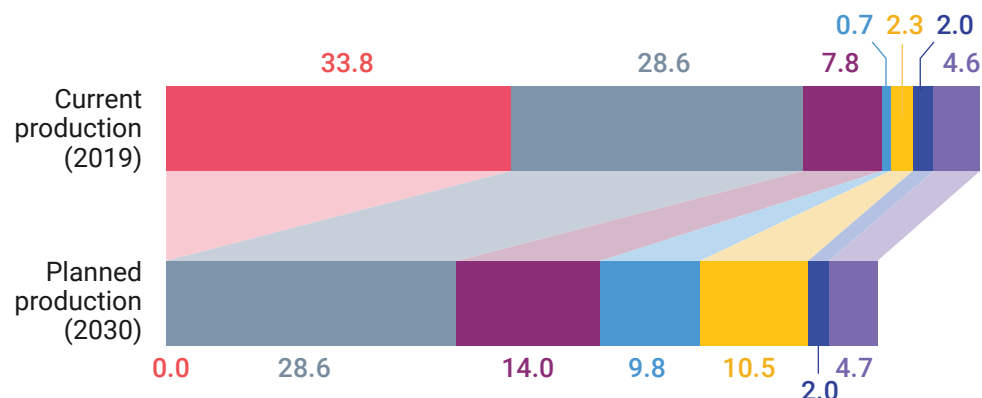


# EMBER: CZECH ELECTRICITY TRANSITION STUDY

A model with focus on complete coal phase-out by 2030

■ Coal ■ Nuclear ■ Gas ■ Wind ■ Solar ■ Hydro\* ■ Biomass, biogas

## ELECTRICITY PRODUCTION in terawatt-hours [TWh]

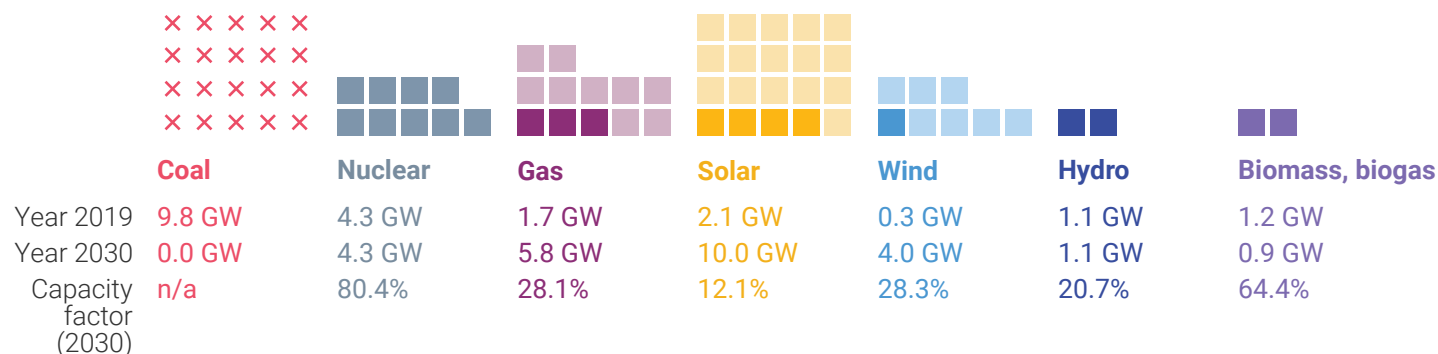


Total production	Net export	Consumption
79.7 TWh	13.1	66.9
69.6 TWh	-0.6	70.2

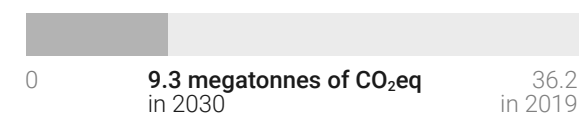
## COMPARISON OF INSTALLED CAPACITY in gigawatts [GW]

■ 2019 Current  
■ 2030 New  
× 2030 To phase out

1× ■ = 500 megawatts of installed capacity



## EMISSIONS FROM ELECTRICITY PRODUCTION\*\*



## ABOUT

The study was prepared by **EMBER**, a British independent think-tank focused on accelerating the global electricity transition from coal to so-called clean energy.

**The study models a full coal phase-out by 2030, including CHP plants.** For 2030, in addition to phasing out coal, it also sets limits for newly installed capacity for wind and solar, based on expert estimates. Within these limitations, it then models cost-optimal investments and electricity generation.

The model shows that **from the cost point of view** (even without government subsidies), **it is best to maximise the installed capacity of wind and solar.** It also suggests that phase-out in the heating industry is feasible when a combination of large heat pumps, waste heat recovery, and gas cogeneration units is used, together with other energy-saving measures.

## INVESTMENT

**€10.5 bn** for the construction of new sources of electricity. Infrastructure and CHP plant investments were not calculated in the study.

## MODEL

An aggregated model of the European grid with power plant development according to ENTSO-E that models hourly electricity generation and consumption. The data is weather-corrected using 3 reference weather patterns, that of 2002, 2006, and 2010.

\* Excluding pumped hydro

\*\* Climate Facts calculation