

A world map with a dark background, overlaid with numerous colored bubbles of varying sizes. The bubbles are primarily yellow and purple, with some pink and orange. They are densely clustered in North America (especially the eastern and central US), Europe (especially Western and Central Europe), and East Asia (China). Smaller bubbles are scattered across South America, Africa, and Australia. The map includes labels for various countries and cities in both English and other languages.

# The world's coal plants

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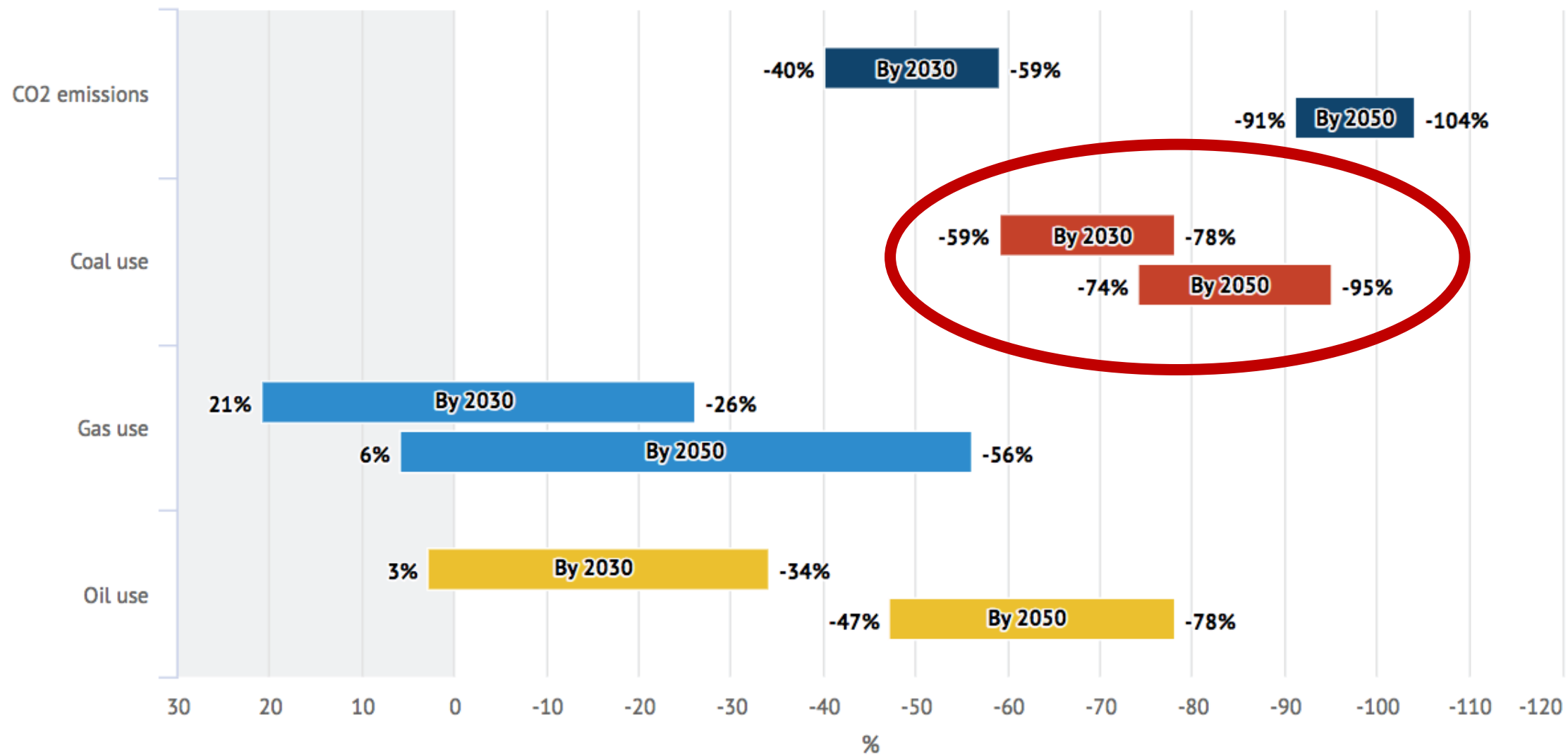


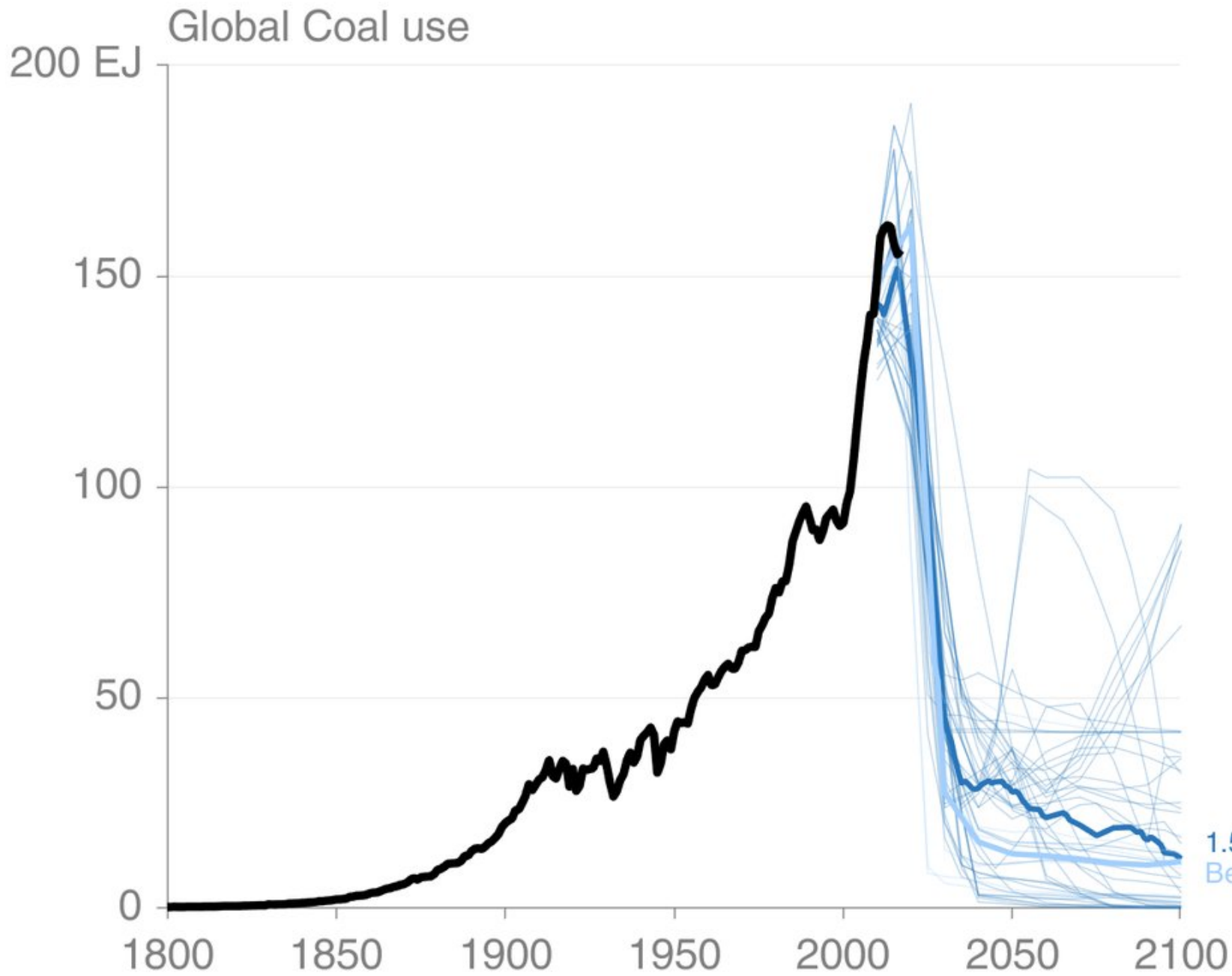
# What I'm going to be covering

- Coal power imperatives: climate, economics and politics
- Recent history of coal power around the world
- Prospects for the years ahead
- Focus on the EU: climate pathways, phaseout plans and more

# How CO2 emissions and fossil fuel use change in 1.5C pathways

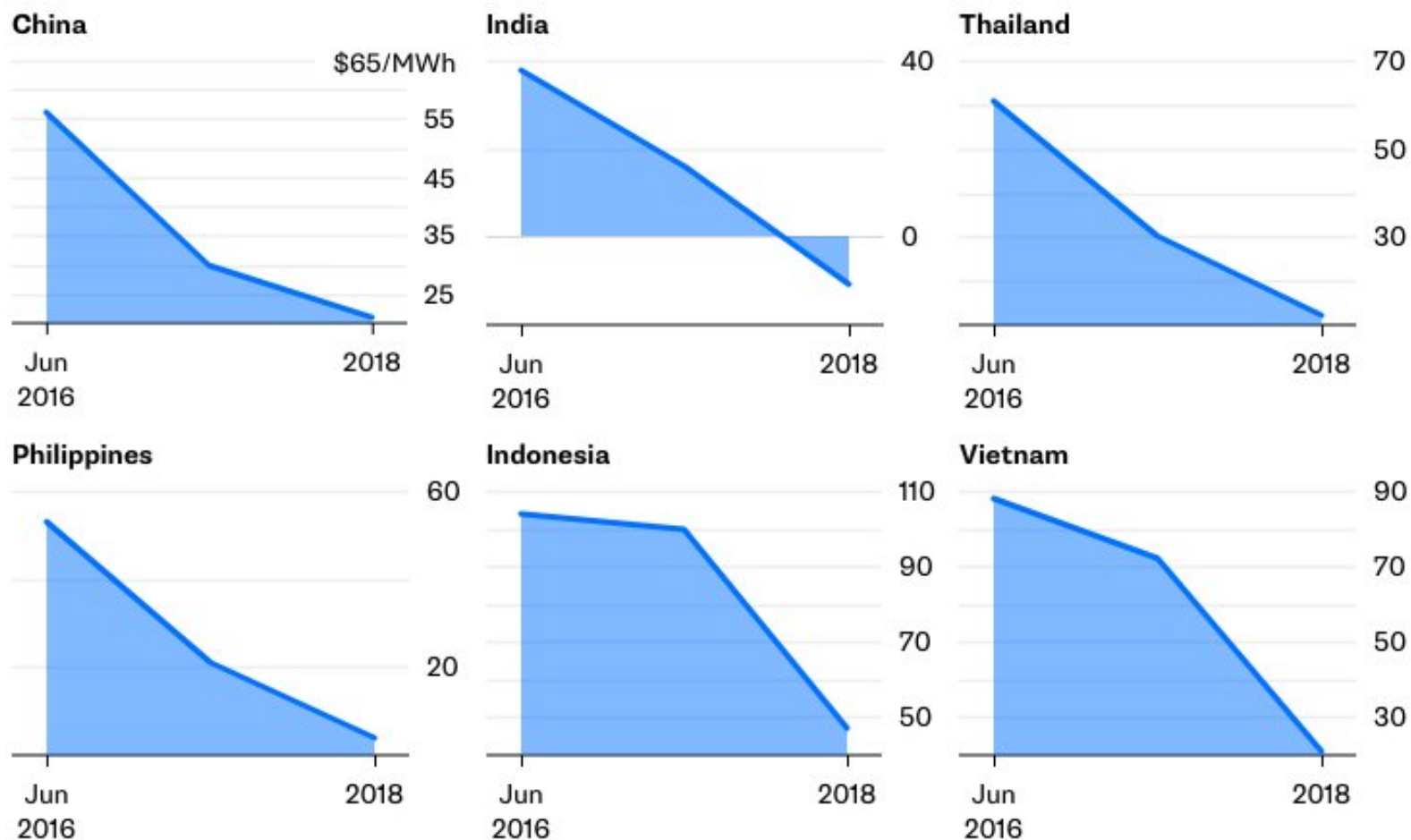
% change from 2010 levels, by 2030 and 2050





## Negative Charge


The price premium for new solar generation over coal in Asia has slumped, and gone negative in India



Source: Bloomberg New Energy Finance

Note: Shows levelized cost of electricity for solar minus LCOE for coal in each country. Coal LCOE ranges from \$46/MWh (China) to \$88/MWh (Philippines)





PRISTINA, Oct 10 (Reuters) - The World Bank said on Wednesday it would not support a planned 500-megawatt (MW) power plant in Kosovo, the Balkan country's first major energy project in more than two decades, because it would use coal rather than cheaper renewable fuels.

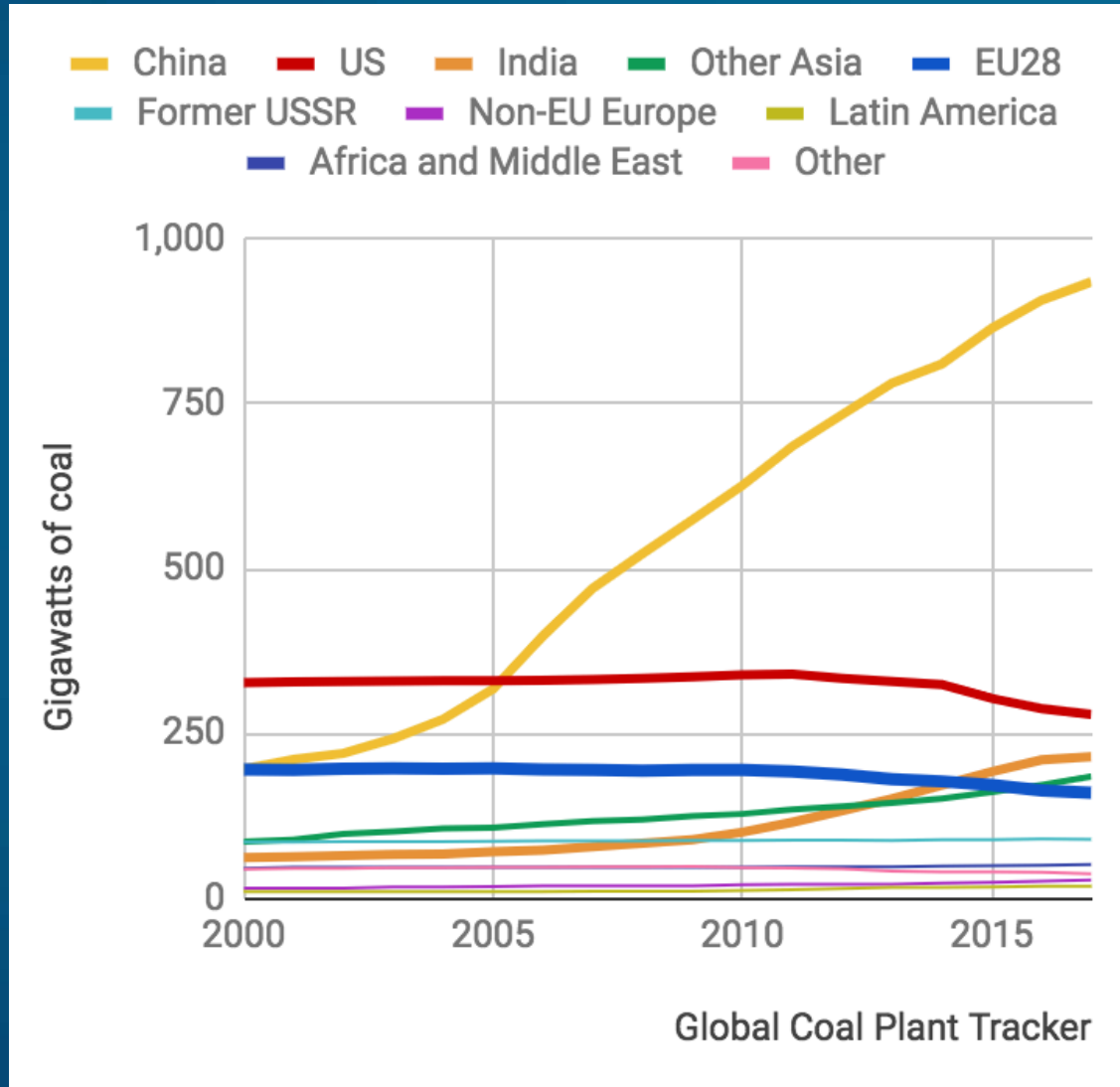
Kosovo's government had asked the Washington-based lender to provide partial risk guarantees to help unlock cheaper loans for the project.

World Bank President Jim Yong Kim said the lender had made "a very firm decision" not to back the project, when asked by a Kosovar civil society representative at a meeting of the bank and International Monetary Fund in Bali.

In comments broadcast on the bank's website, he said the institution's rules required that it "go with the lowest cost option, and renewables have now come below the cost of coal ... so without question we are not going to do that."



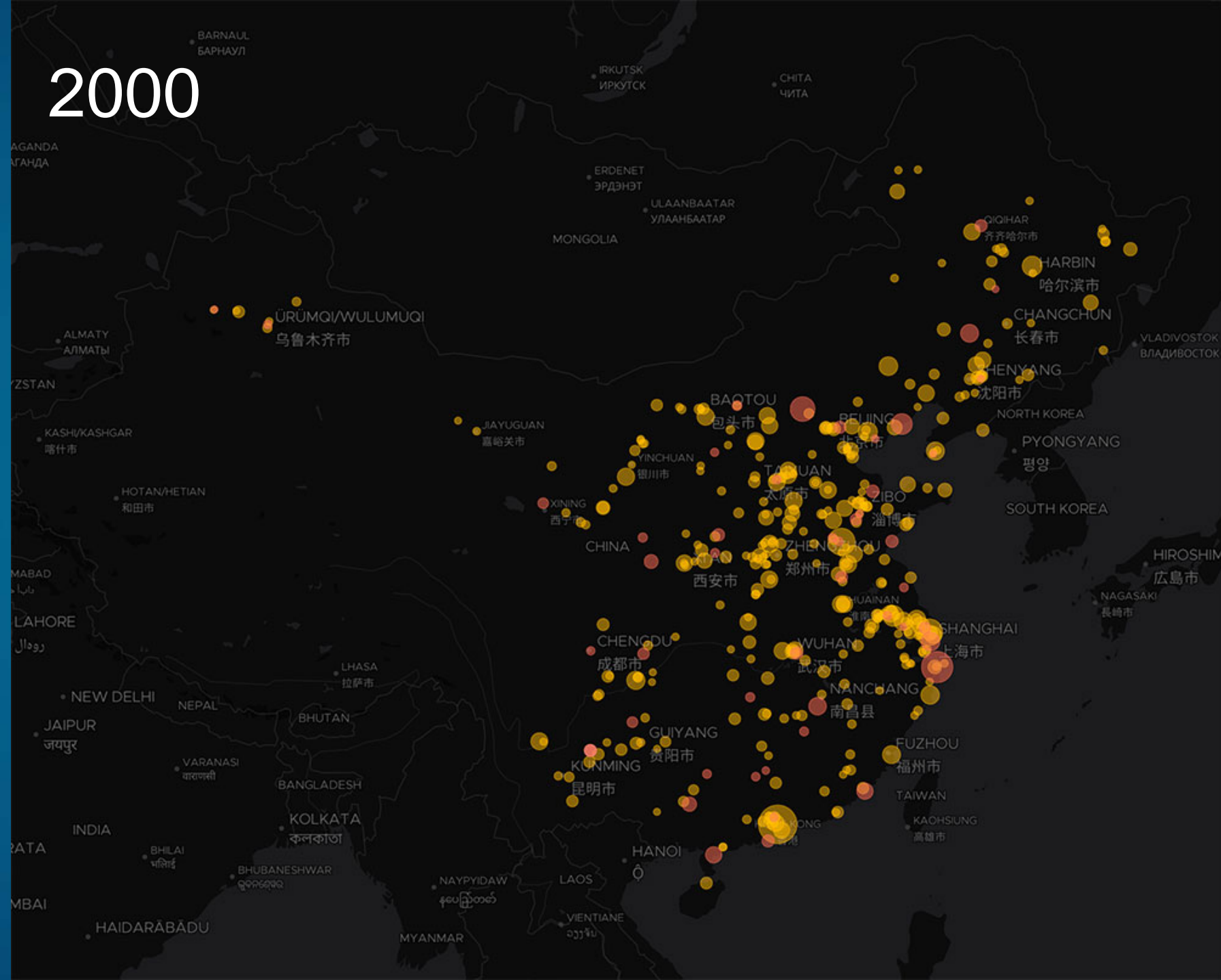
# Global coal capacity has doubled since 2000



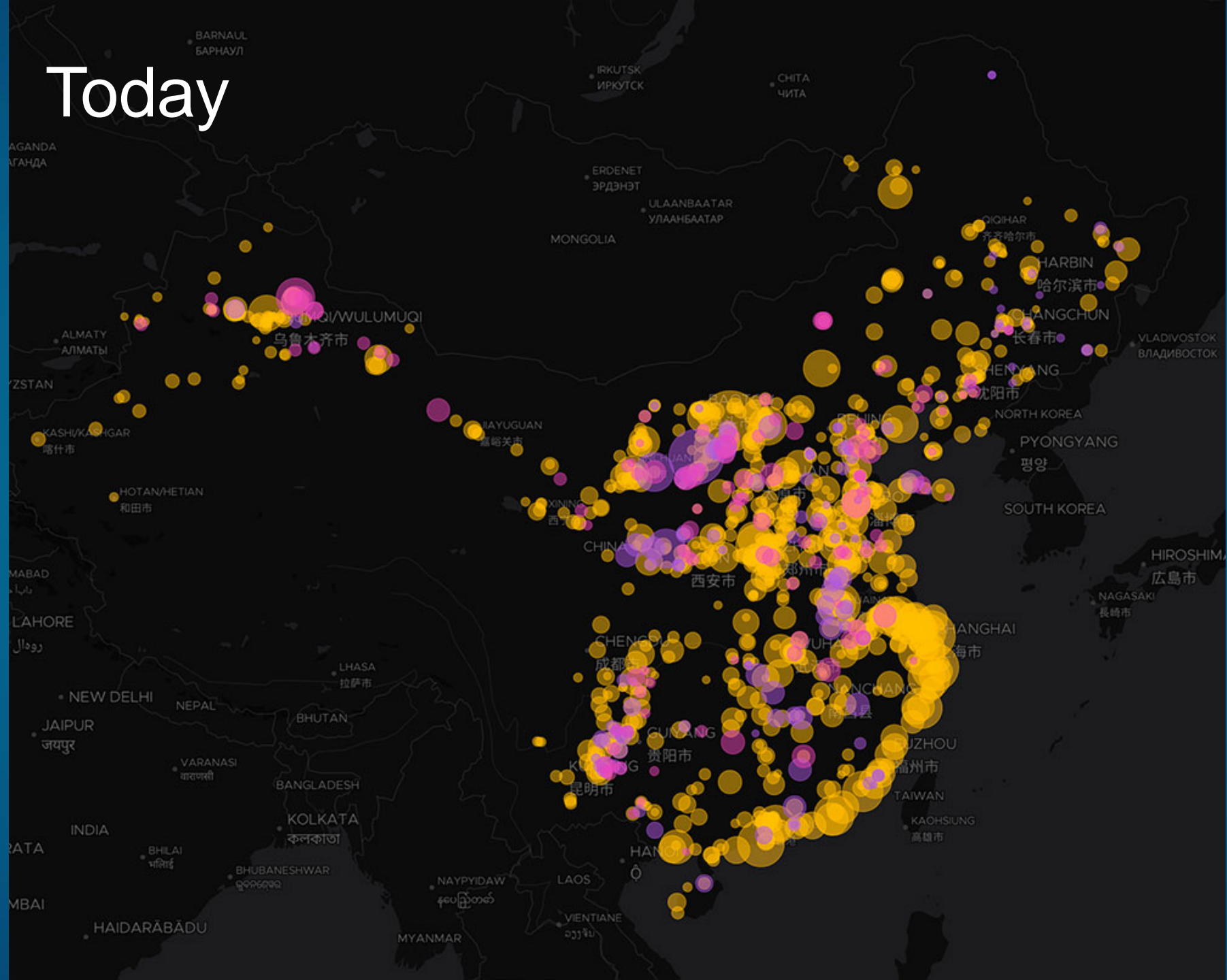
- Global coal capacity reached ~2,000GW in 2017
- Half is in China, which started this century at the same level as the EU28
- India overtook the EU in 2015
- The US and EU have declined.



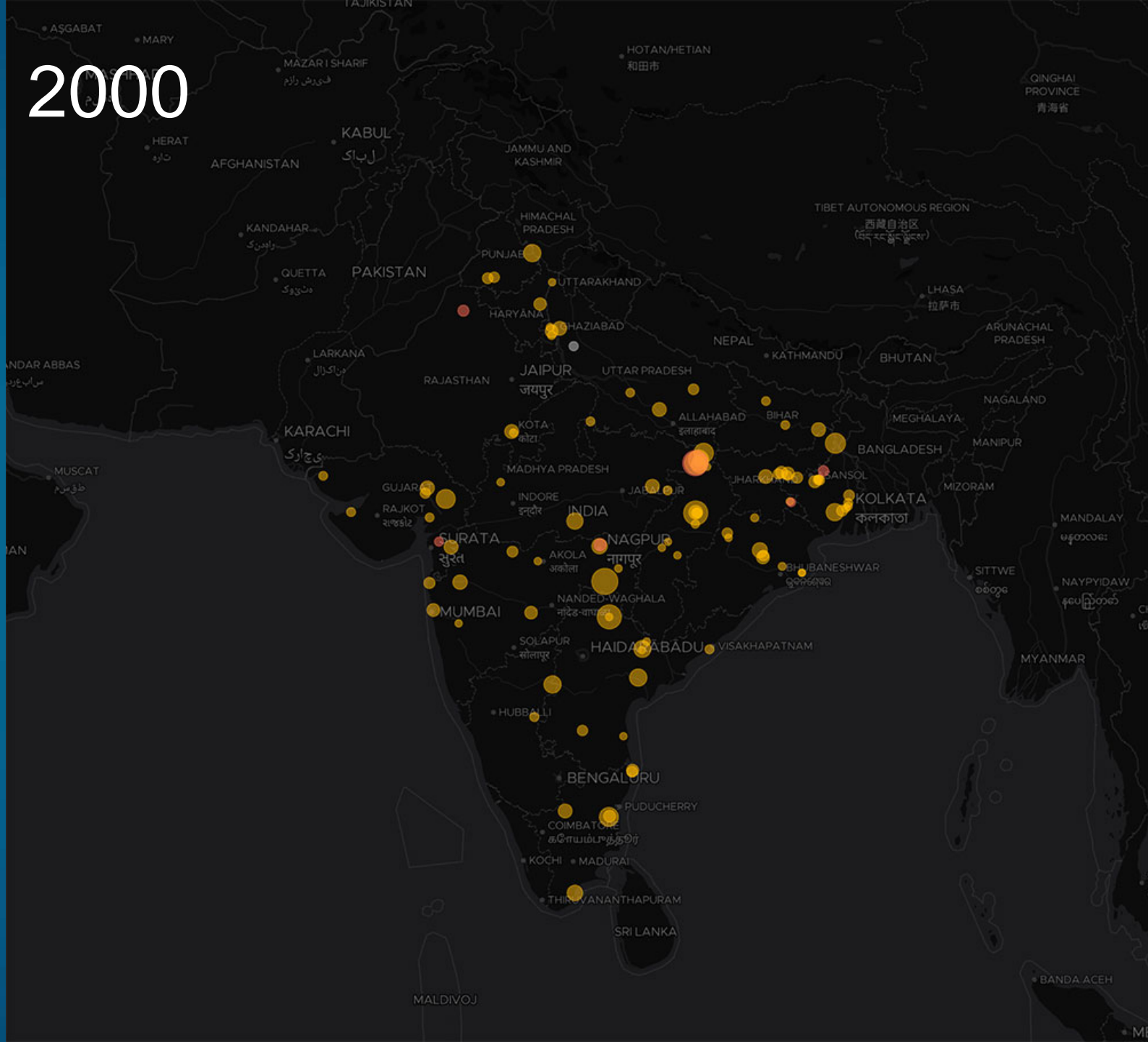
# 2000



# Today

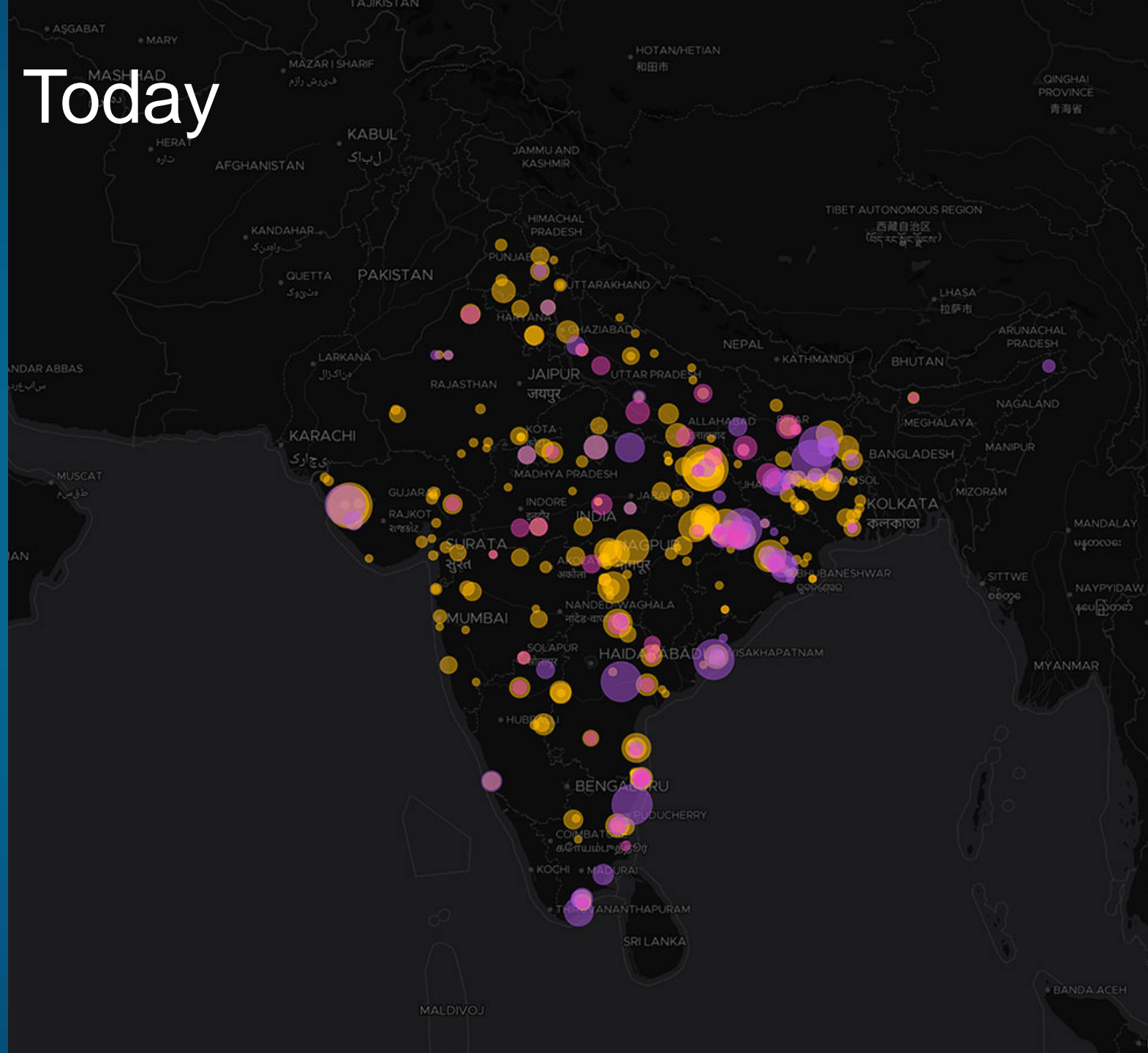


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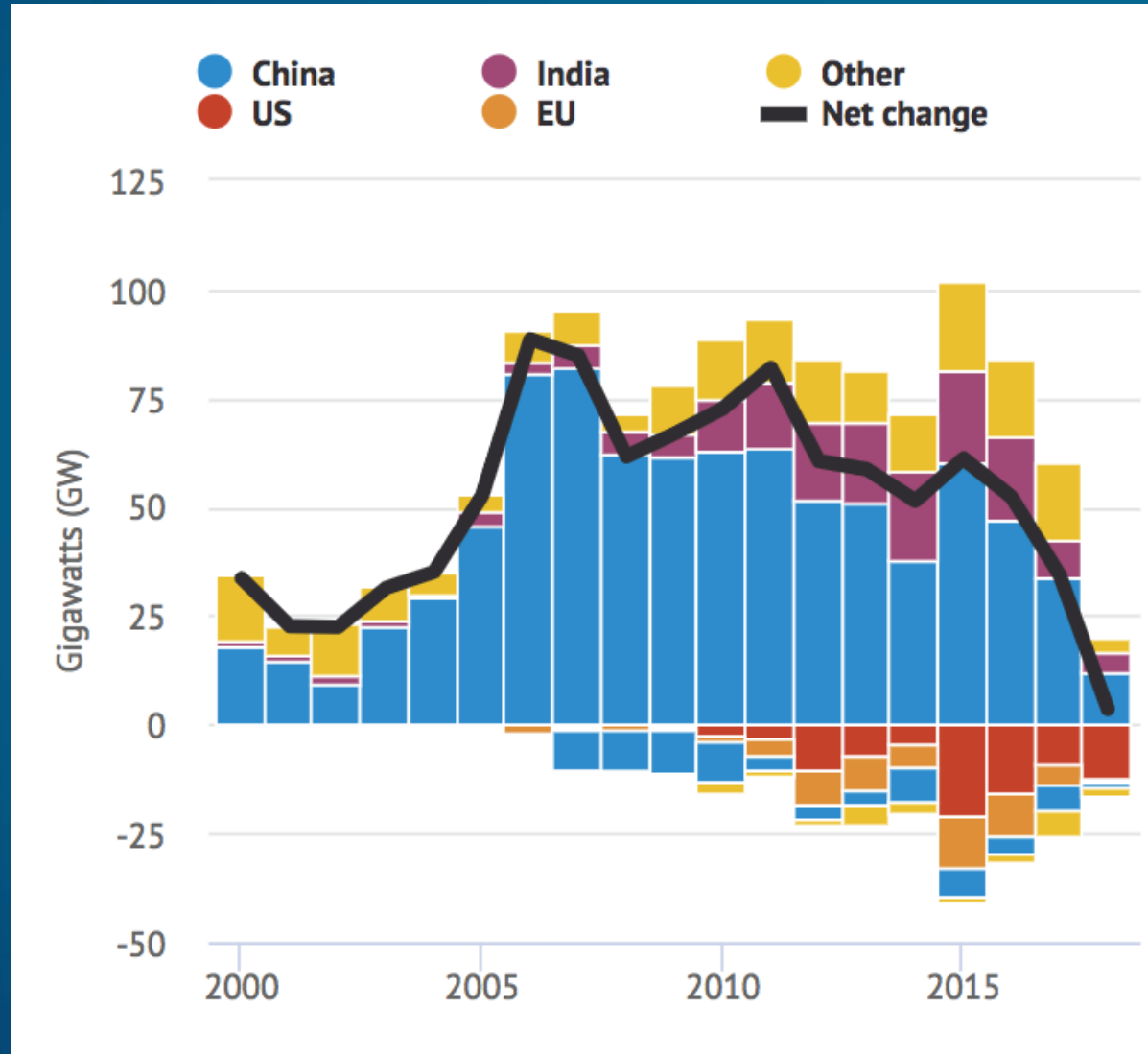


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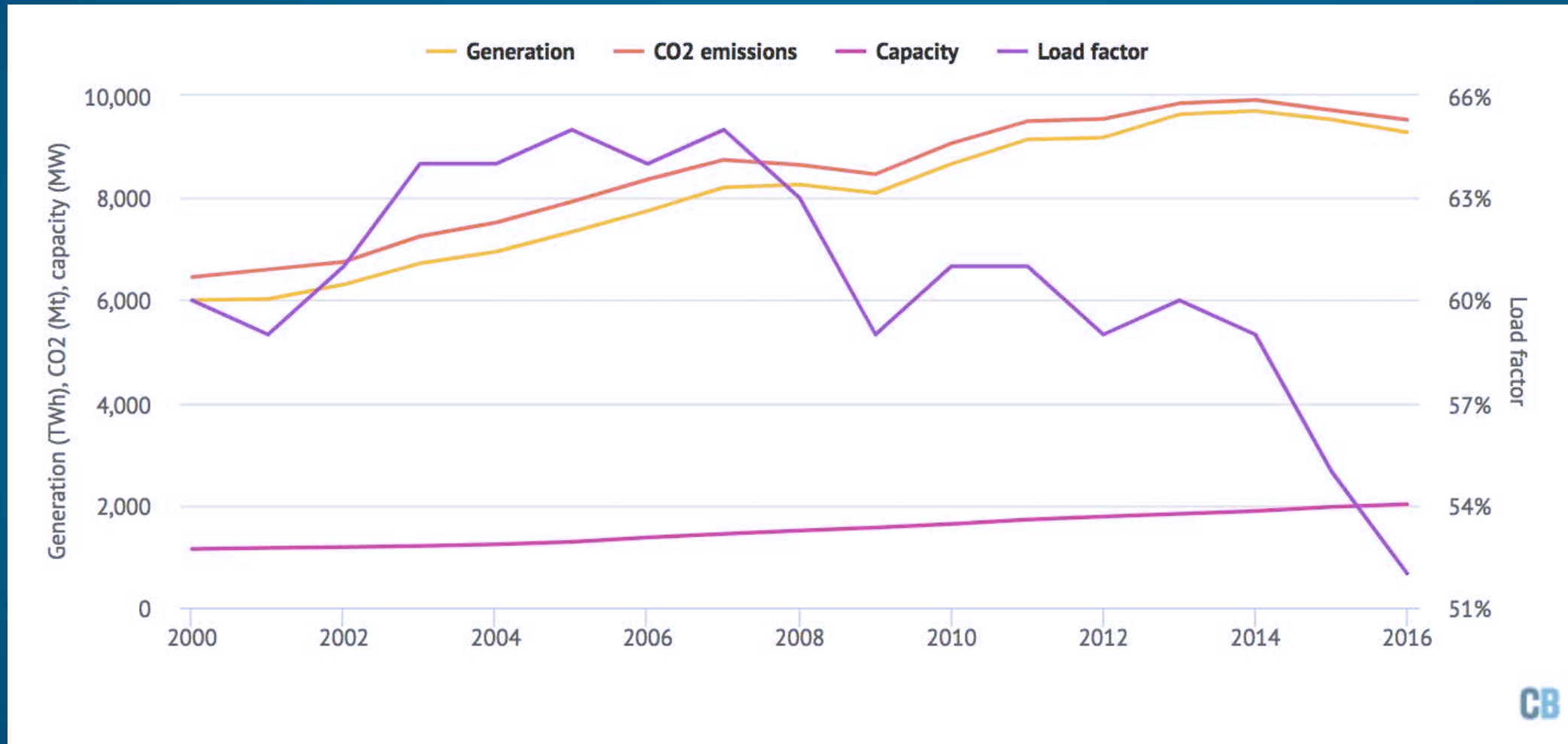


# Peak coal capacity is coming soon



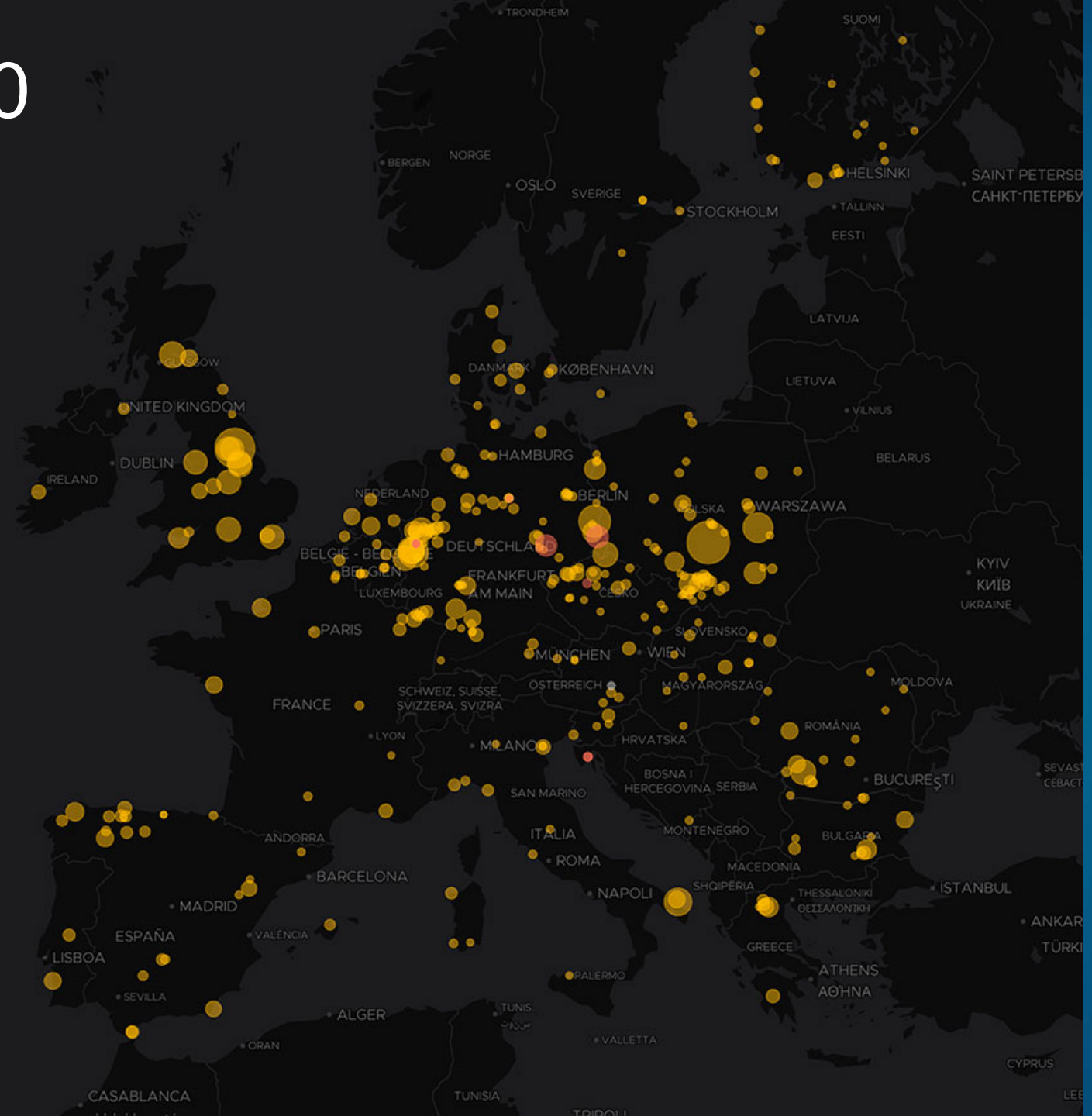
- The pipeline of new capacity is collapsing
- Proposed new capacity has shrunk two-thirds since 2015
- Retirements continue in US, EU

# Peak coal CO2 may already have passed

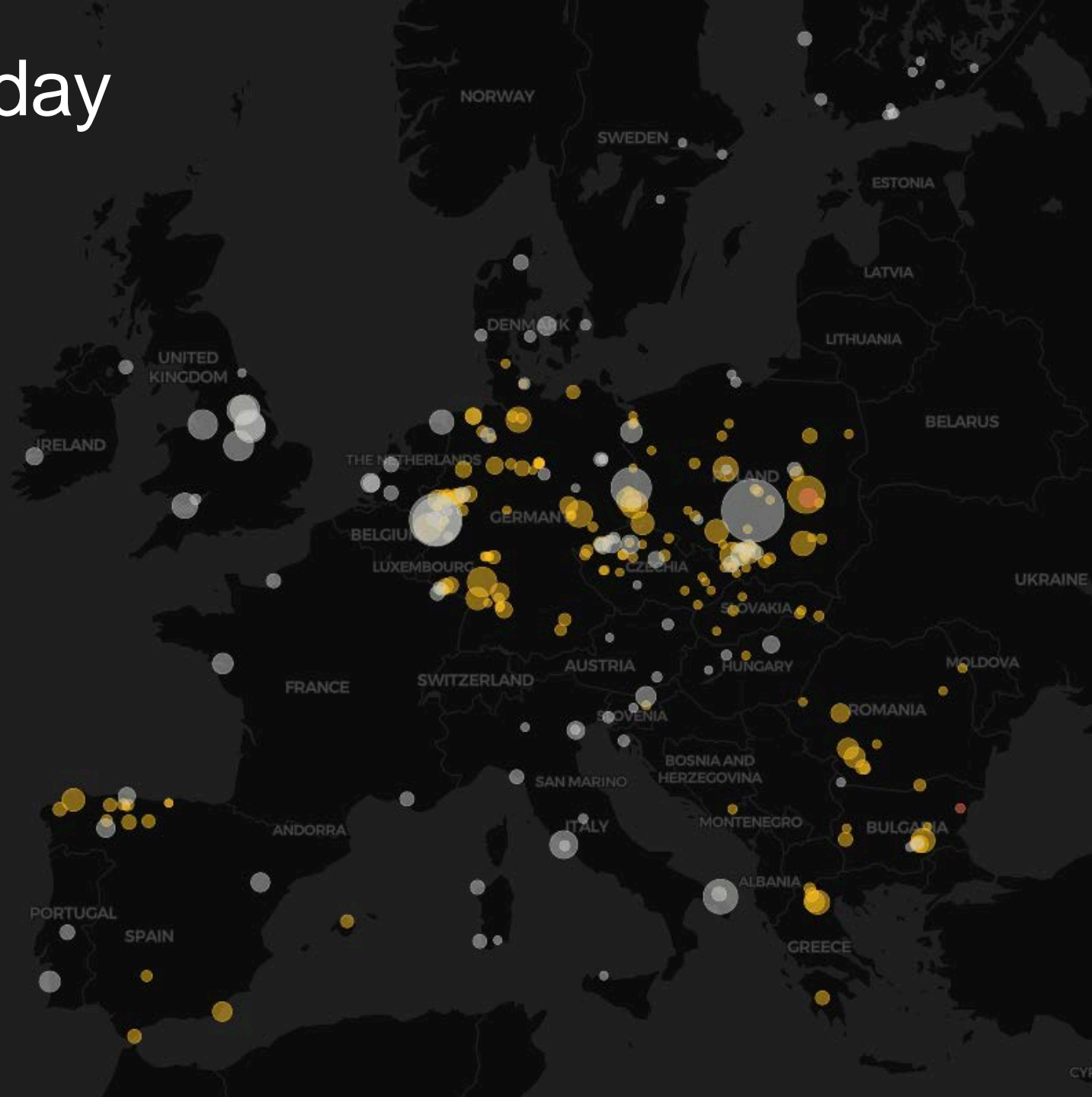


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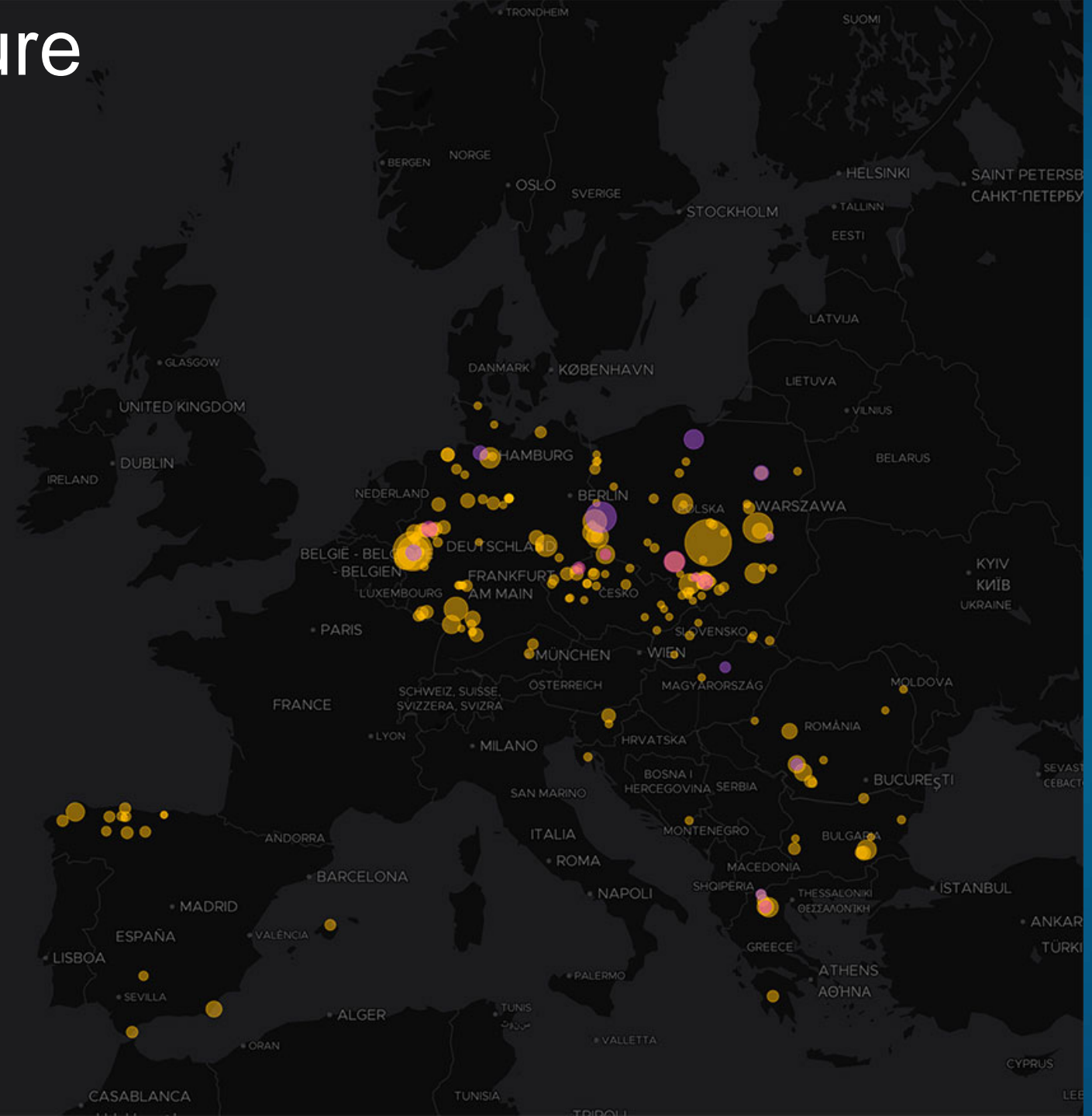


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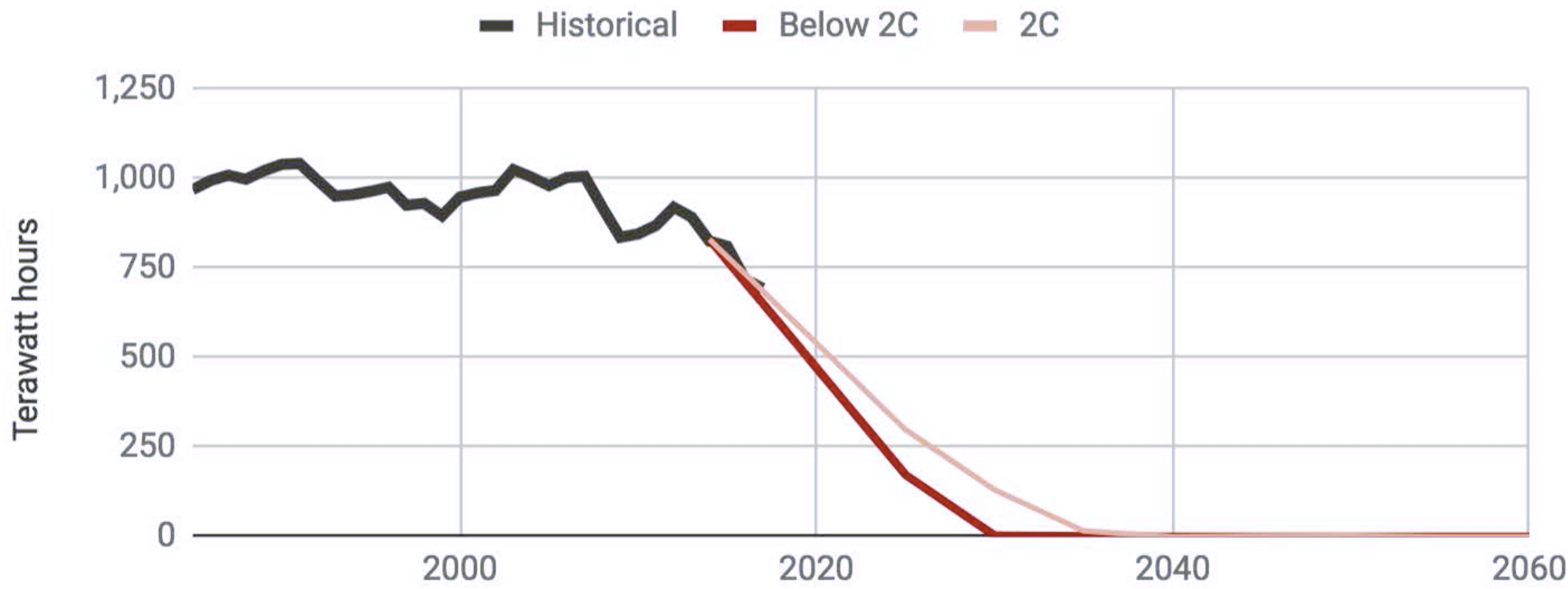


# Future ?



# IEA: The EU reaches zero coal power by 2030 for "below 2C"

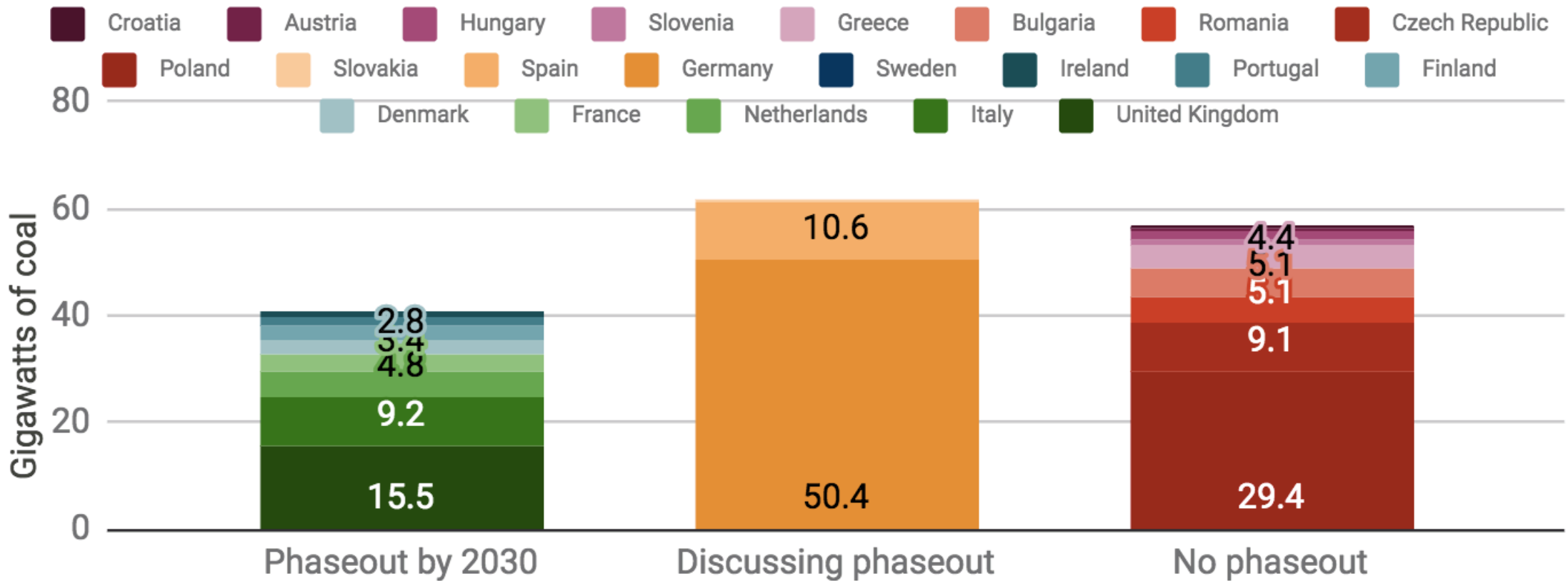
Zero coal is delayed by 5 years for 2C



IEA ETP 2017 2C and B2DS scenarios, BP Statistical Review 2018

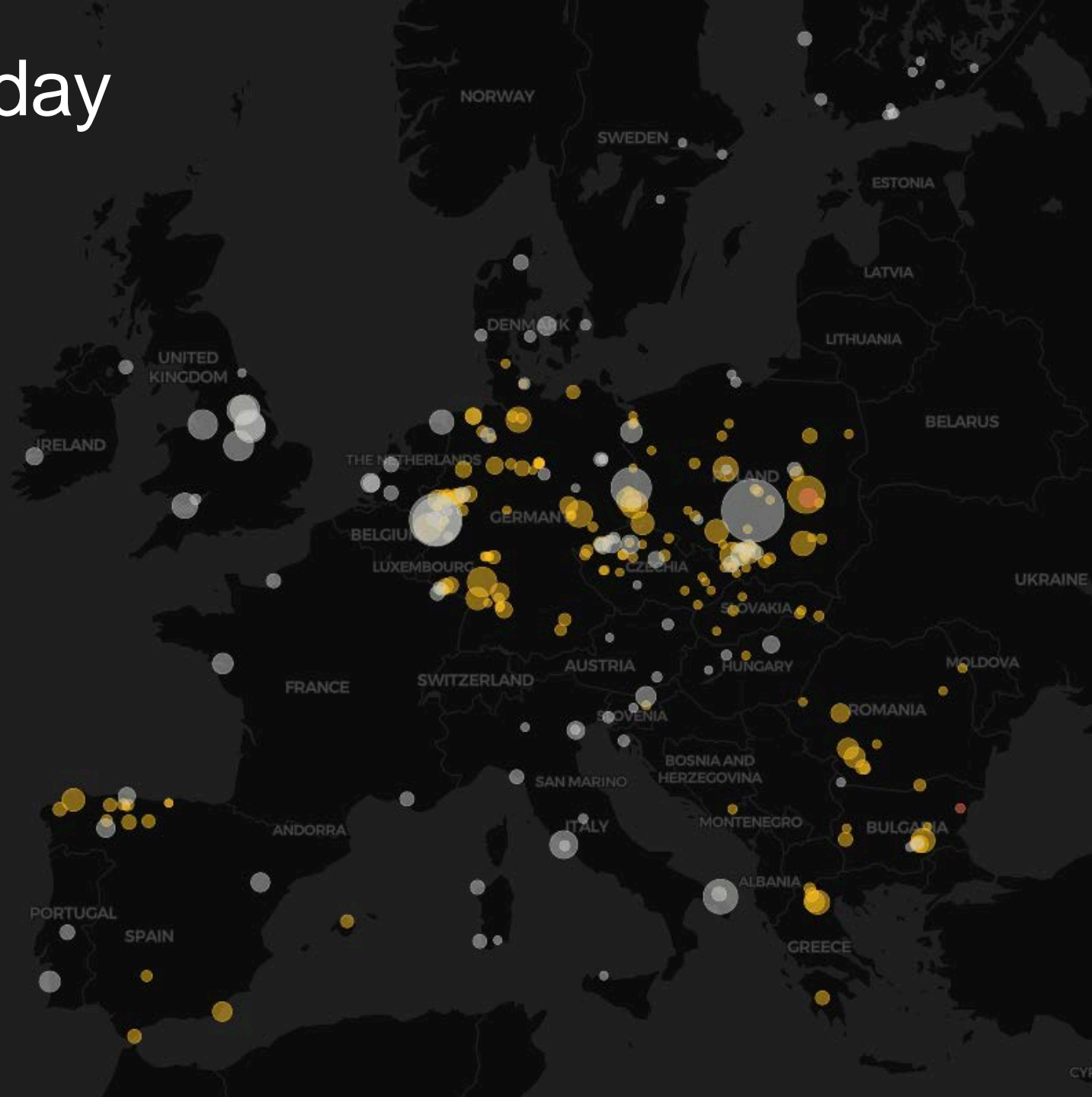
# Most EU coal capacity is set to be phased out...

...but only a minority of countries have a fixed date

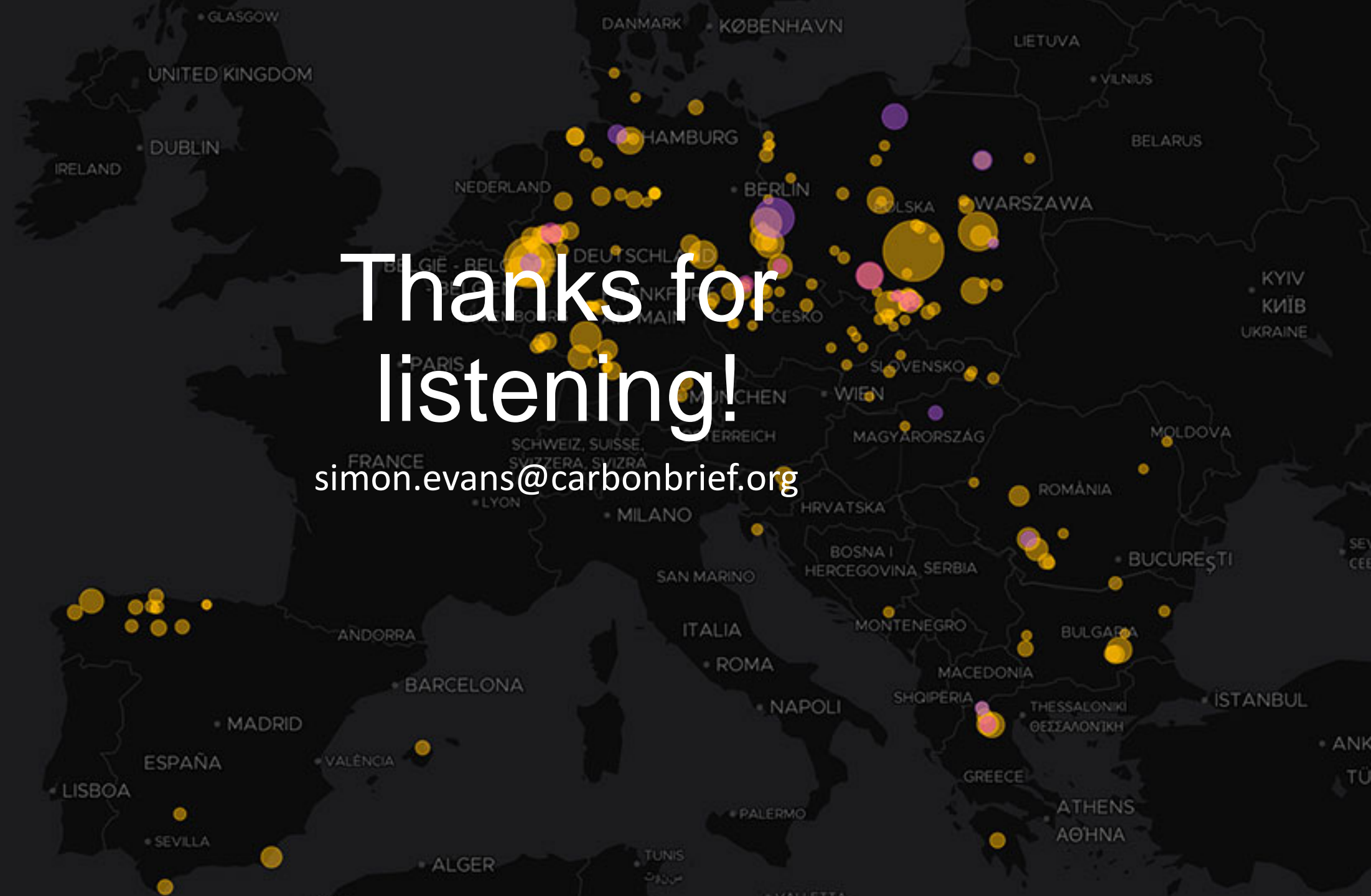


Global Coal Plant Tracker; Carbon Brief analysis

# Today



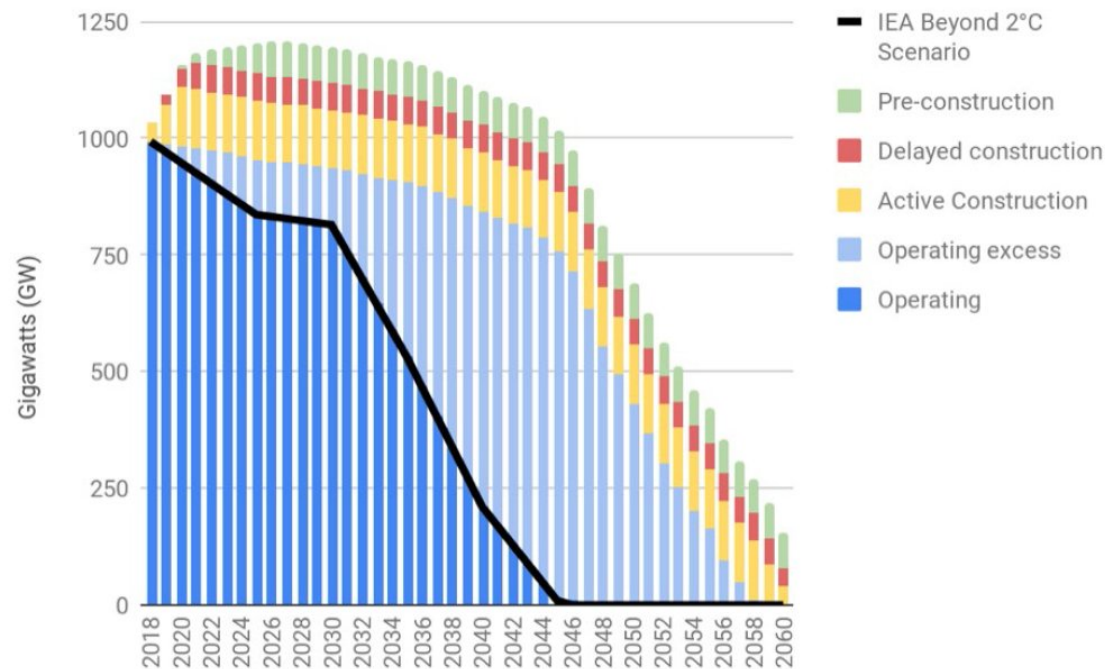




Thanks for  
listening!  
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# IEA “below 2C” sees thousands of coal plants “stranded”

Figure 5. Coal power operating and poised to be added to the coal fleet exceeds international climate goals

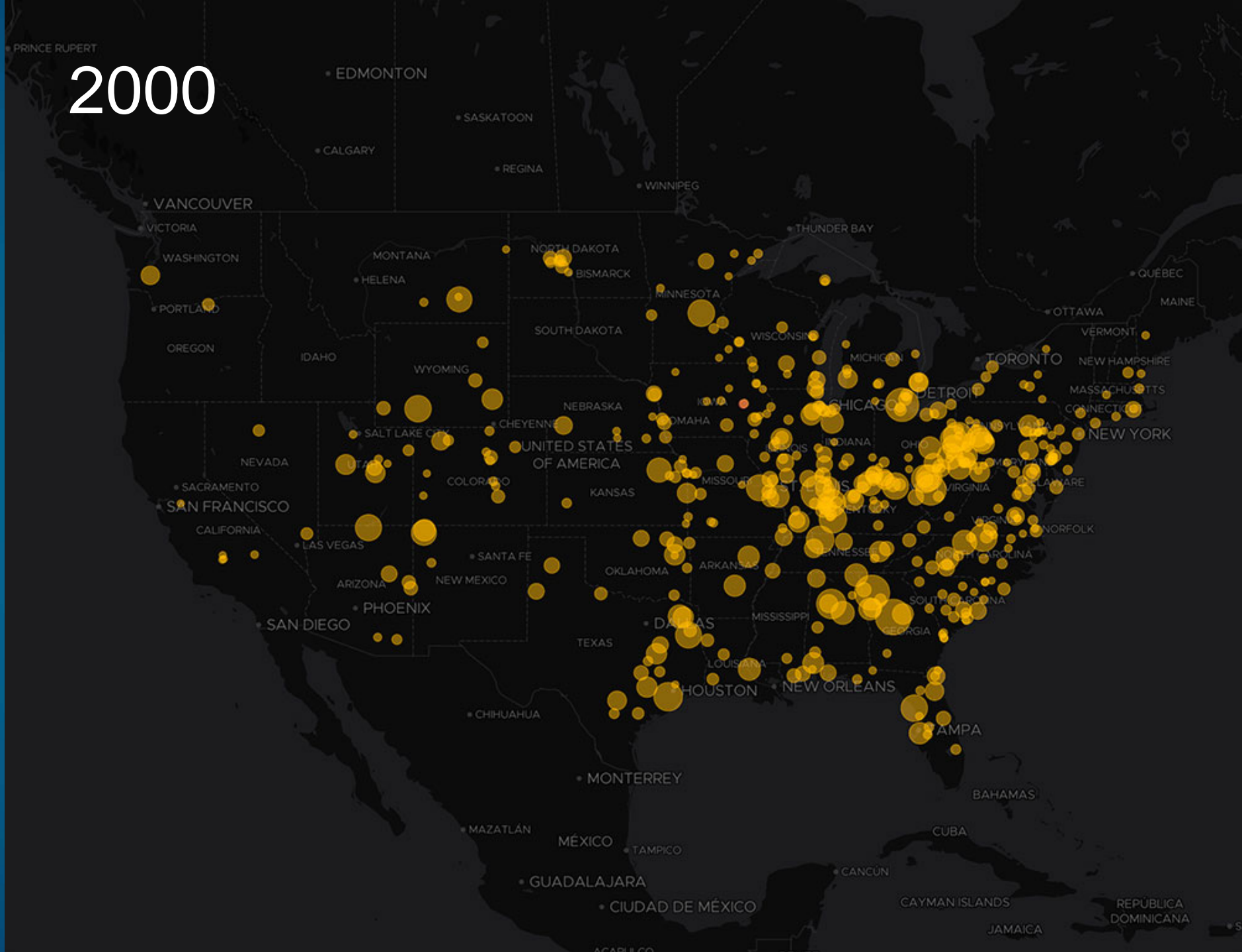


Currently operating coal power capacity (blue bars) and a projection of what is currently under development (yellow, red, and green bars) retired at 40 years of age will exceed the IEA's Beyond 2°C Scenario (shaded area above black line).

(Source: CoalSwarm, Global Coal Plant Tracker, July 2018; China Electricity Council 2018)

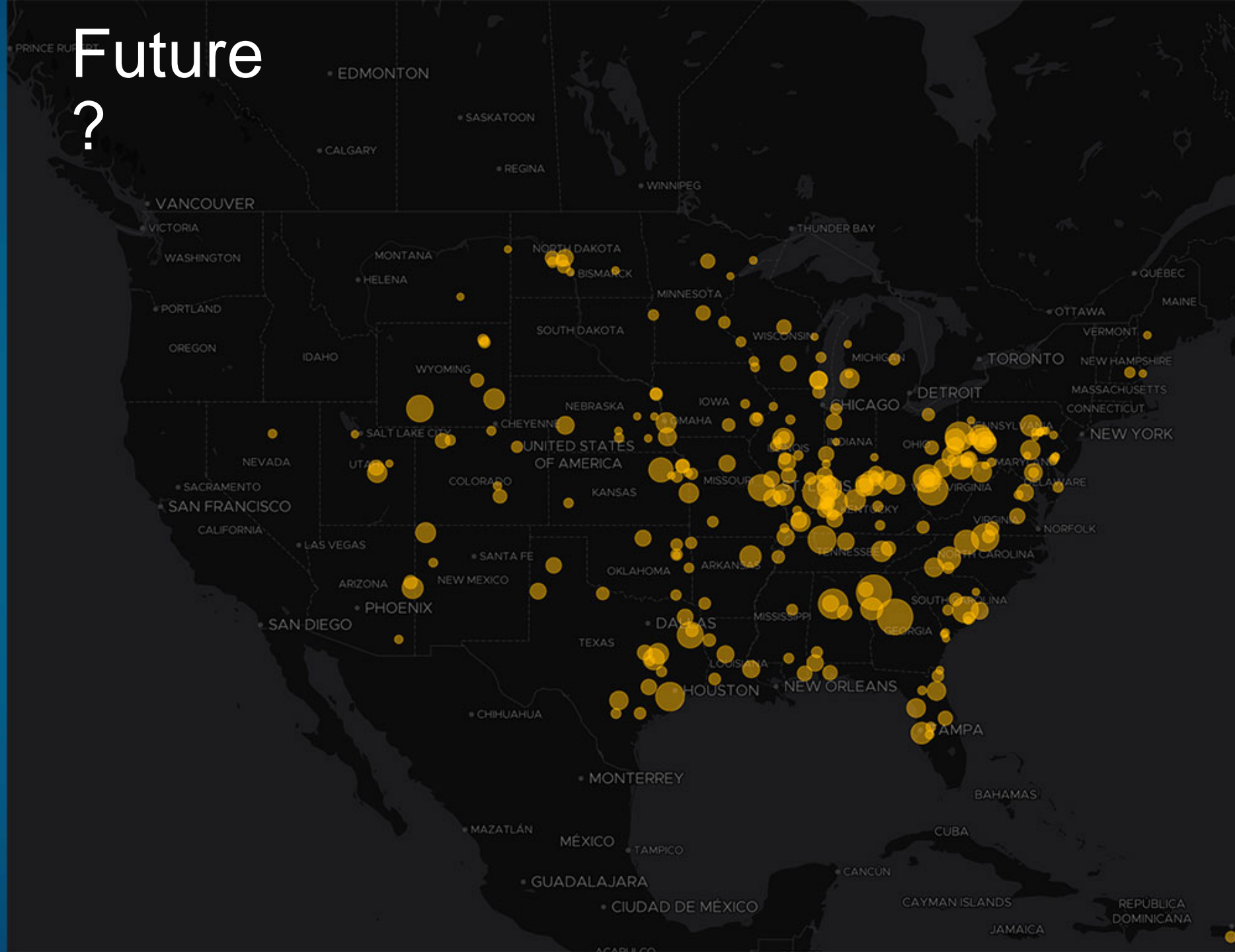
- 1,715GW closes early in IEA below 2C scenario, equiv. China, US, Japan, Germany AND Poland
- Even the IEA 2C scenario sees 1,520GW close early, equiv. China, US, Russia and Poland

2000





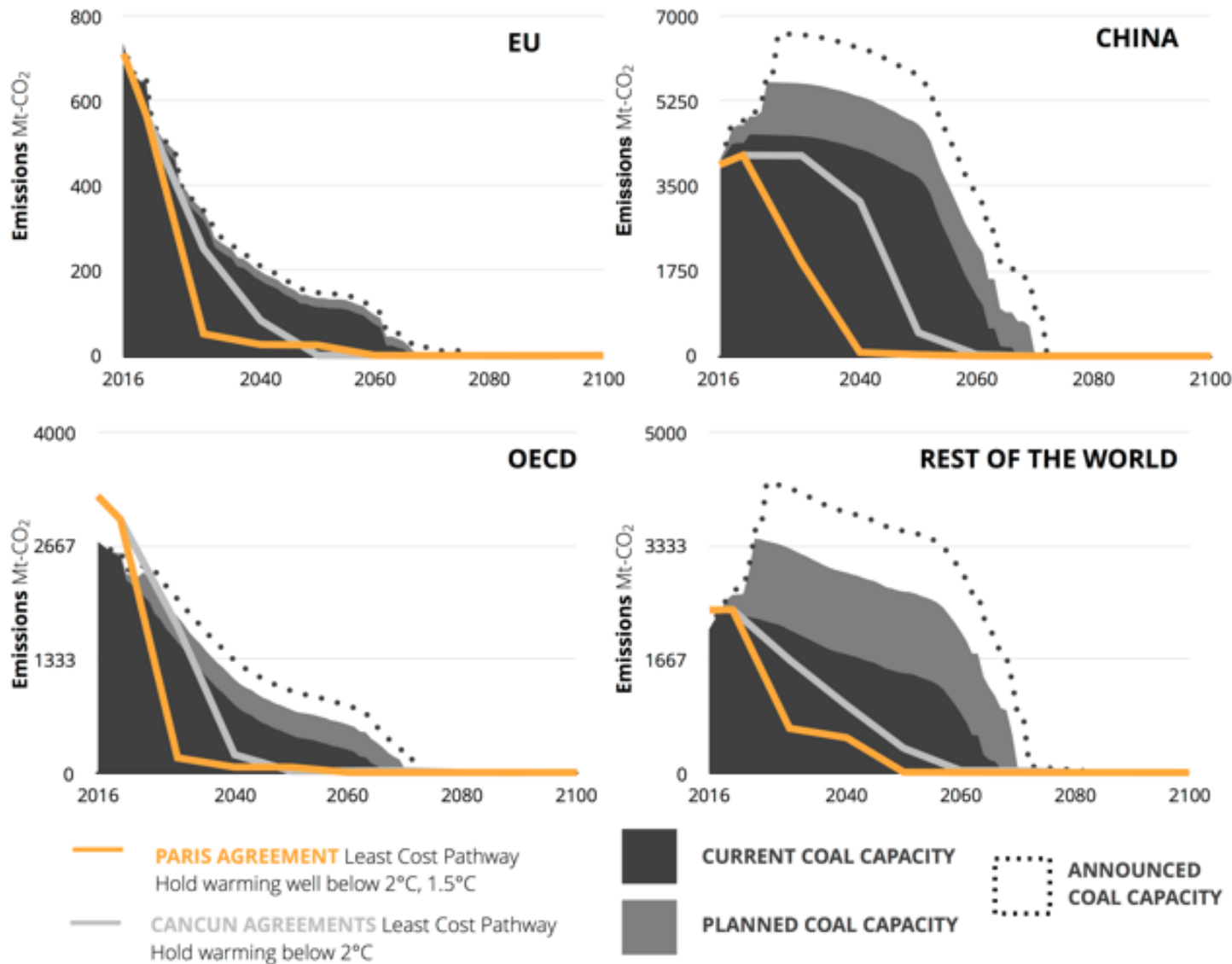
# Future ?



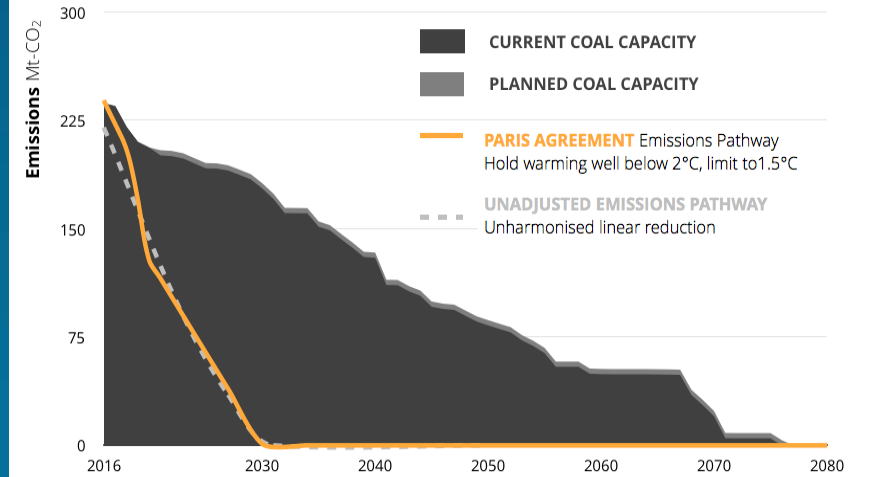


# Future

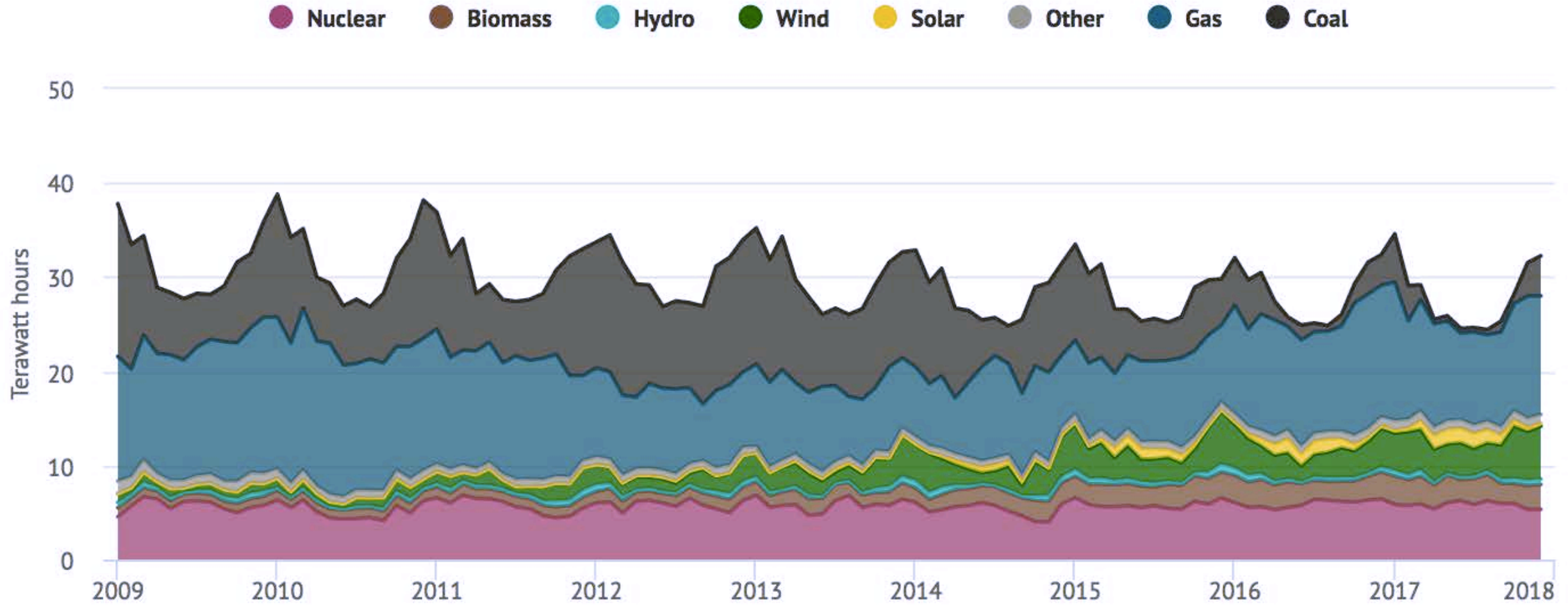
## REGIONAL potential CO<sub>2</sub> emissions from existing and planned coal capacity against least-cost pathways.



## Germany potential CO<sub>2</sub> emissions from existing and planned coal capacity against benchmark pathways.



# Monthly UK electricity generation 2009-2017



# Monthly UK electricity generation by source

■ Nuclear ■ Gas ■ Coal ■ Hydro ■ Wind ■ Other ■ Biomass ■ Solar ■ Imports  
— Effective carbon price

