



E3G

Rising to the challenge: prospects for reducing global coal power generation

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Summary: global trends are positive, so governments can act with confidence



The challenges:

- Stop building new coal power plants by 2020.
- Curtail current coal capacity – and plan to phase out.
- End subsidies for fossil fuels.
- Tax pollution, not people.

Status report:

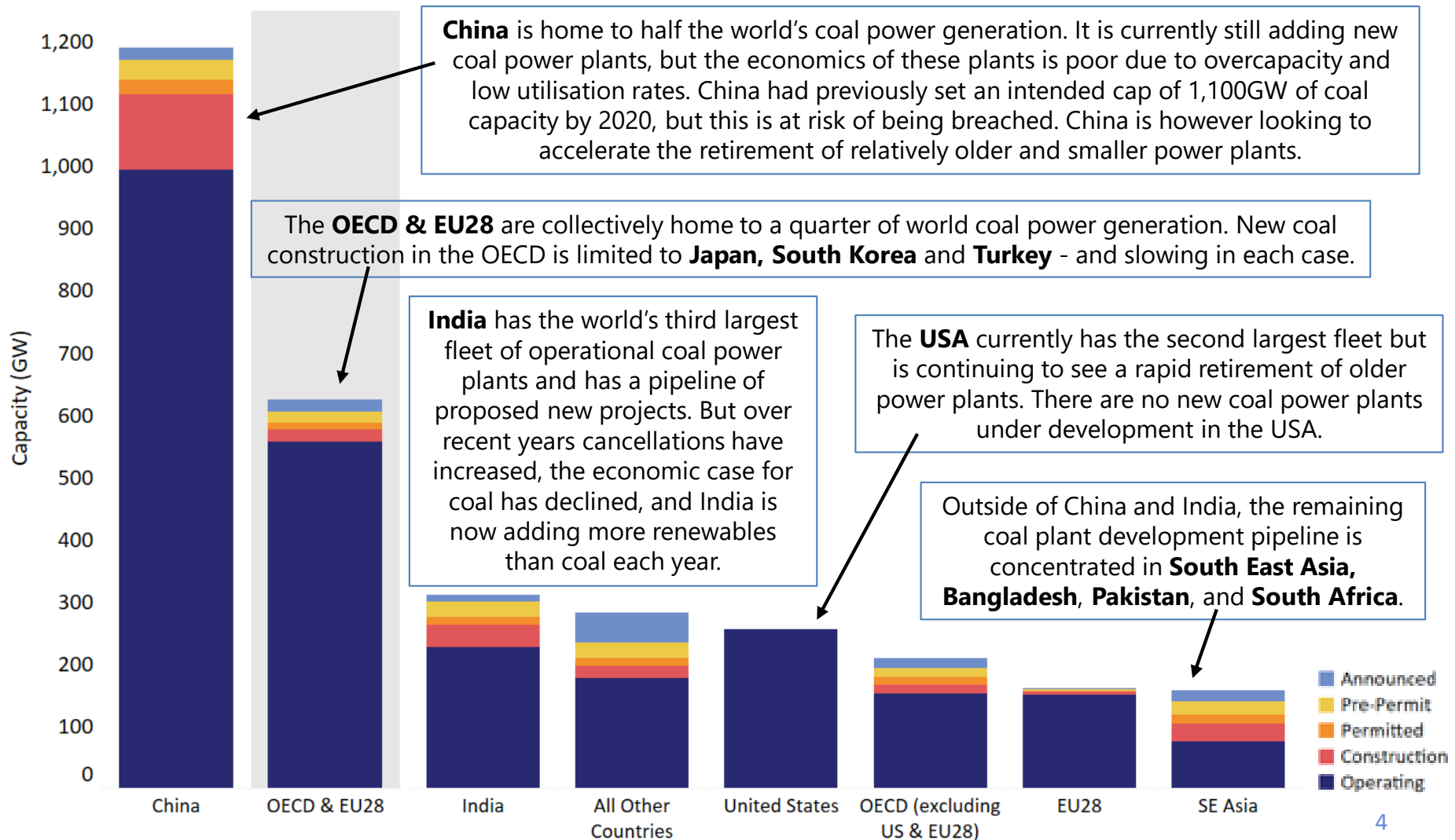
- Construction of new coal power plants is slowing and concentrated in Asia. Many countries could commit to no new coal construction by 2020.
- Coal power generation is in decline in Europe and North America. [PPCA](#) members developing national policies.
- China, Japan, and South Korea are still providing significant finance for coal power plant construction.
- Carbon pricing in the UK and Europe has helped secure a rapid reduction in coal power generation, aided by investment in renewable energy.

Introduction to data presentation

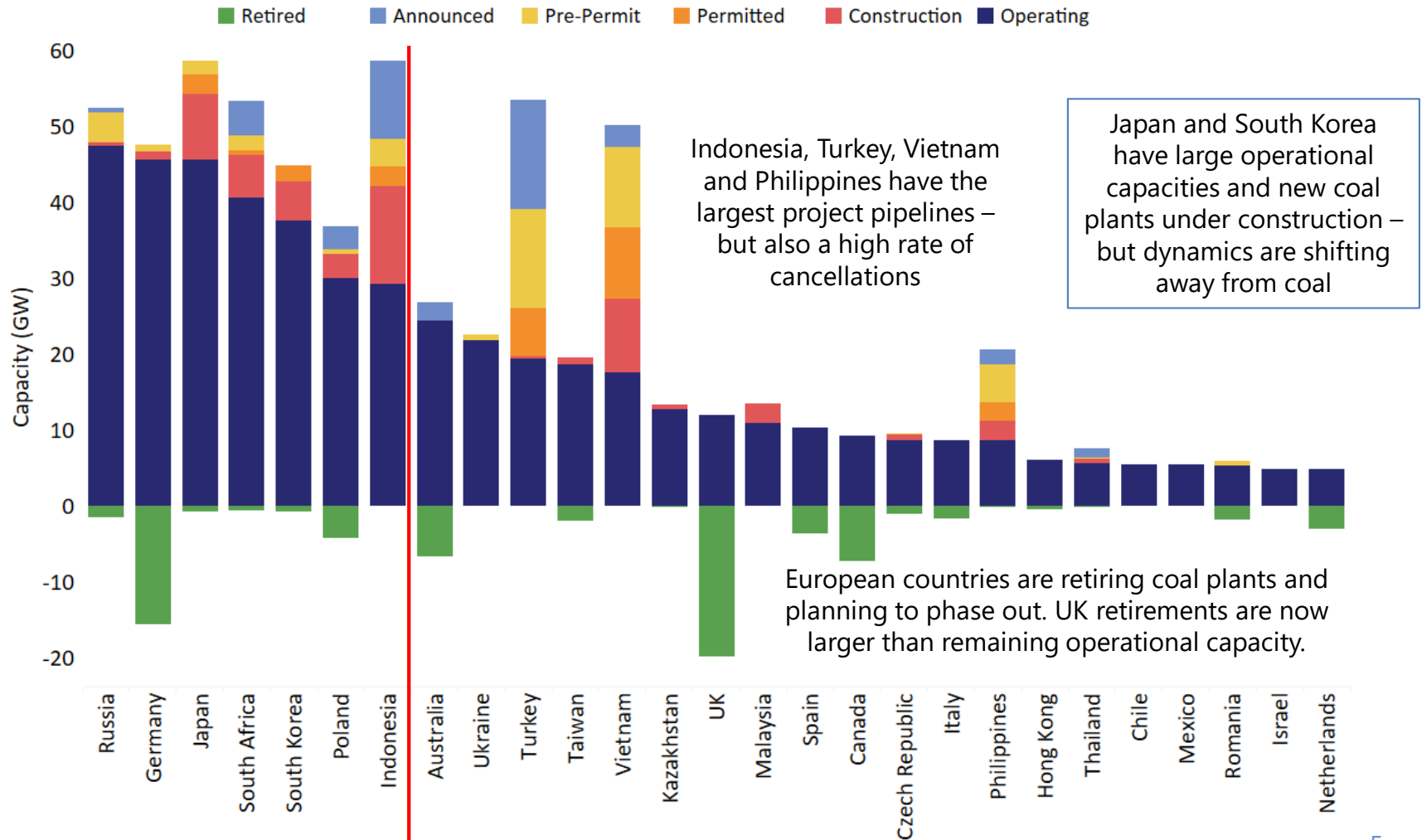


- All data in the following charts are taken from the [July 2019 update](#) of the Global Coal Plant Tracker database produced by Global Energy Monitor. Summary tables are available for [numbers of power plants](#) and [size \(capacity\) of coal generation](#).
- Capacity figures are in gigawatts (GW).
- References to 'Pipeline' or projects 'under development' refer to power plants categorised as being at stages prior to operation:
 - Announced
 - Pre-Permit
 - Permitted
 - Construction
 - Operating
- Coal use is highly concentrated: the top 10 countries for coal power generation and projects under development account for ~85% of capacity in each case.
- China alone is home to half of global coal capacity and construction. India and the USA complete the top three coal users.
- Most of the following charts exclude these three countries for presentation purposes – all countries need to act to reduce coal use, not just the largest.
- Slide 4 provides an overview of global distribution by region. Slides 5-7 break this down by country. Slides 8-13 look at different dynamics among groups of countries.

Overview of global coal capacity

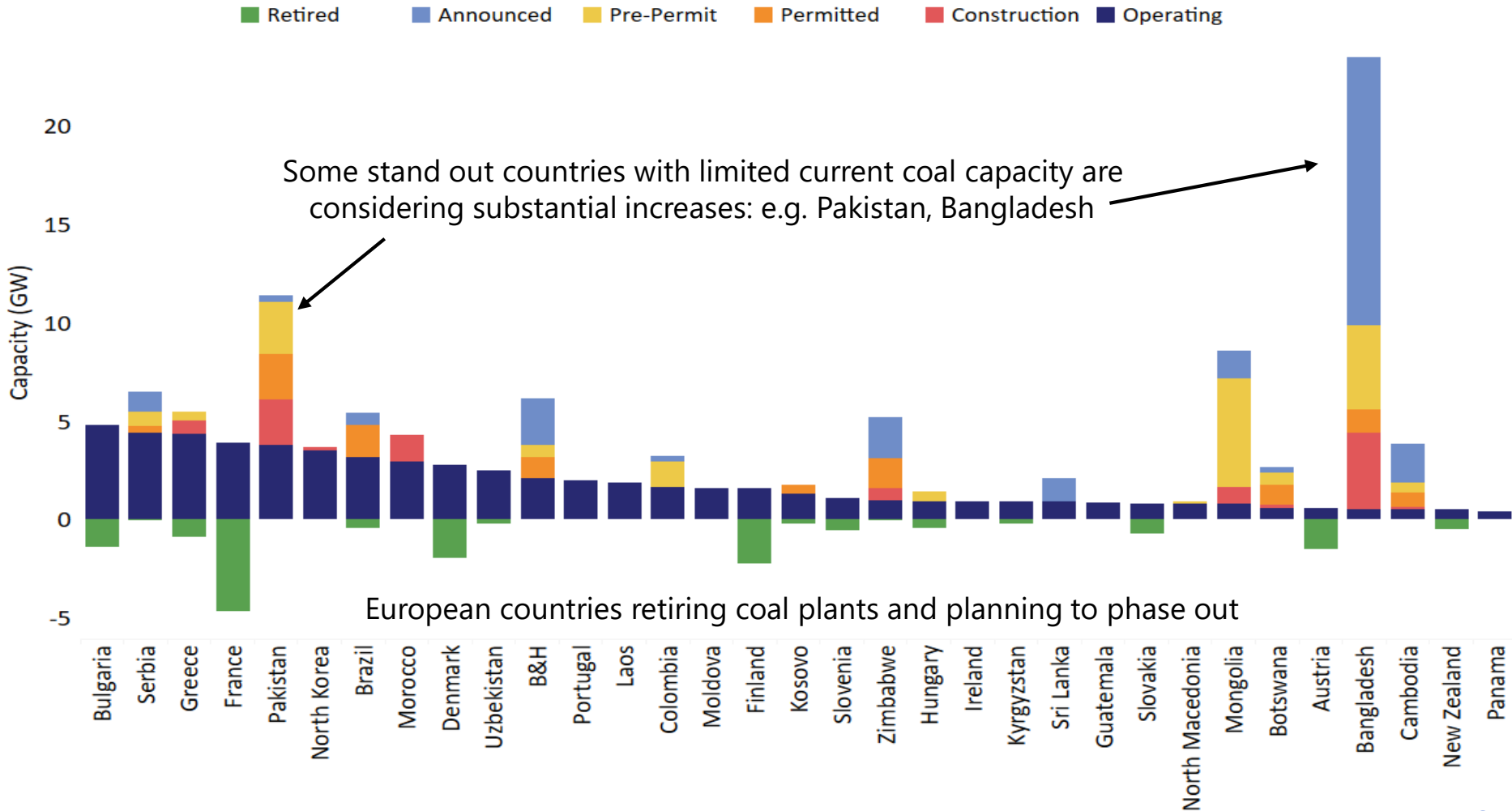


Coal power generation distribution (1)

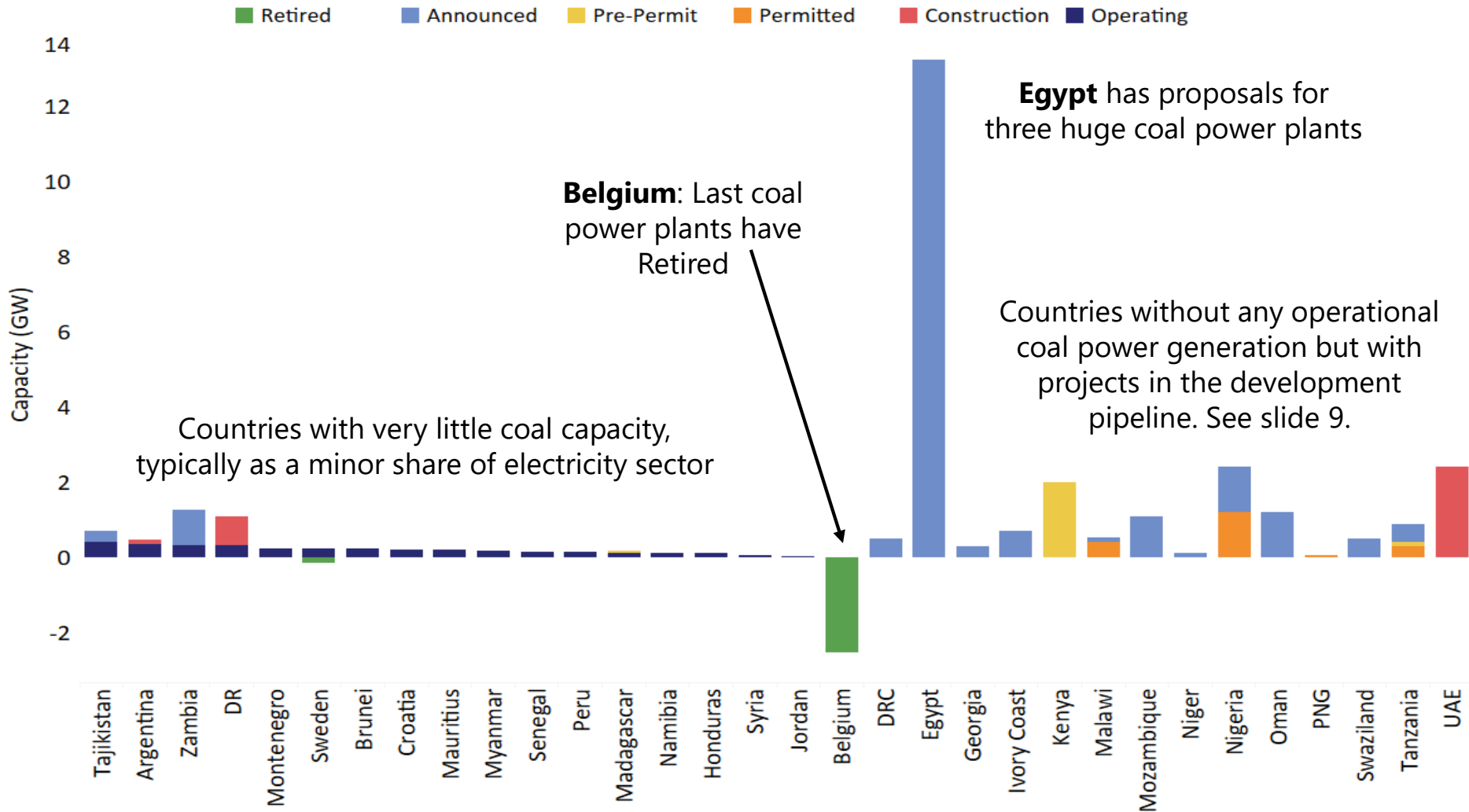


Top 10 existing capacity

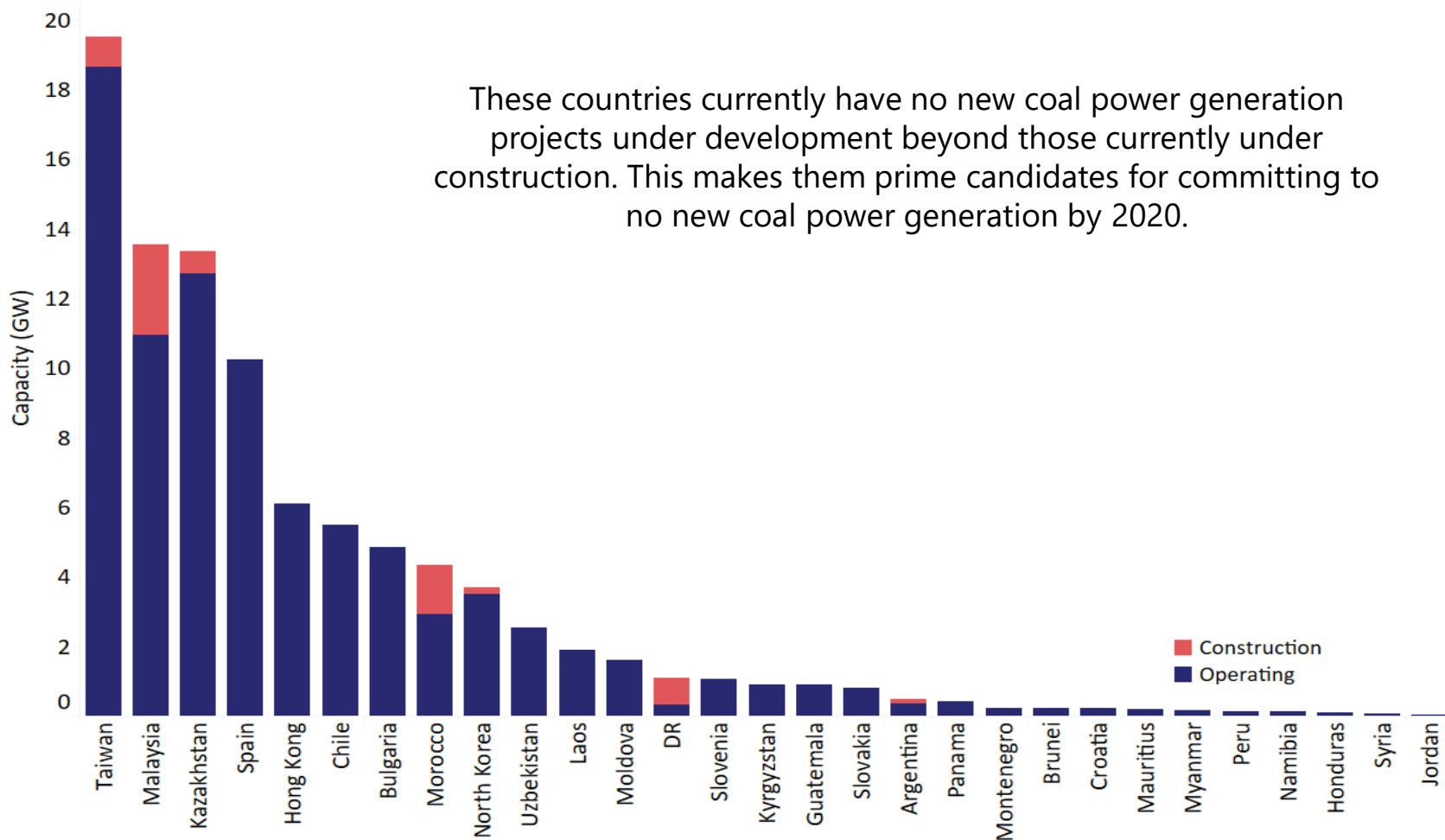
Coal power generation distribution (2)



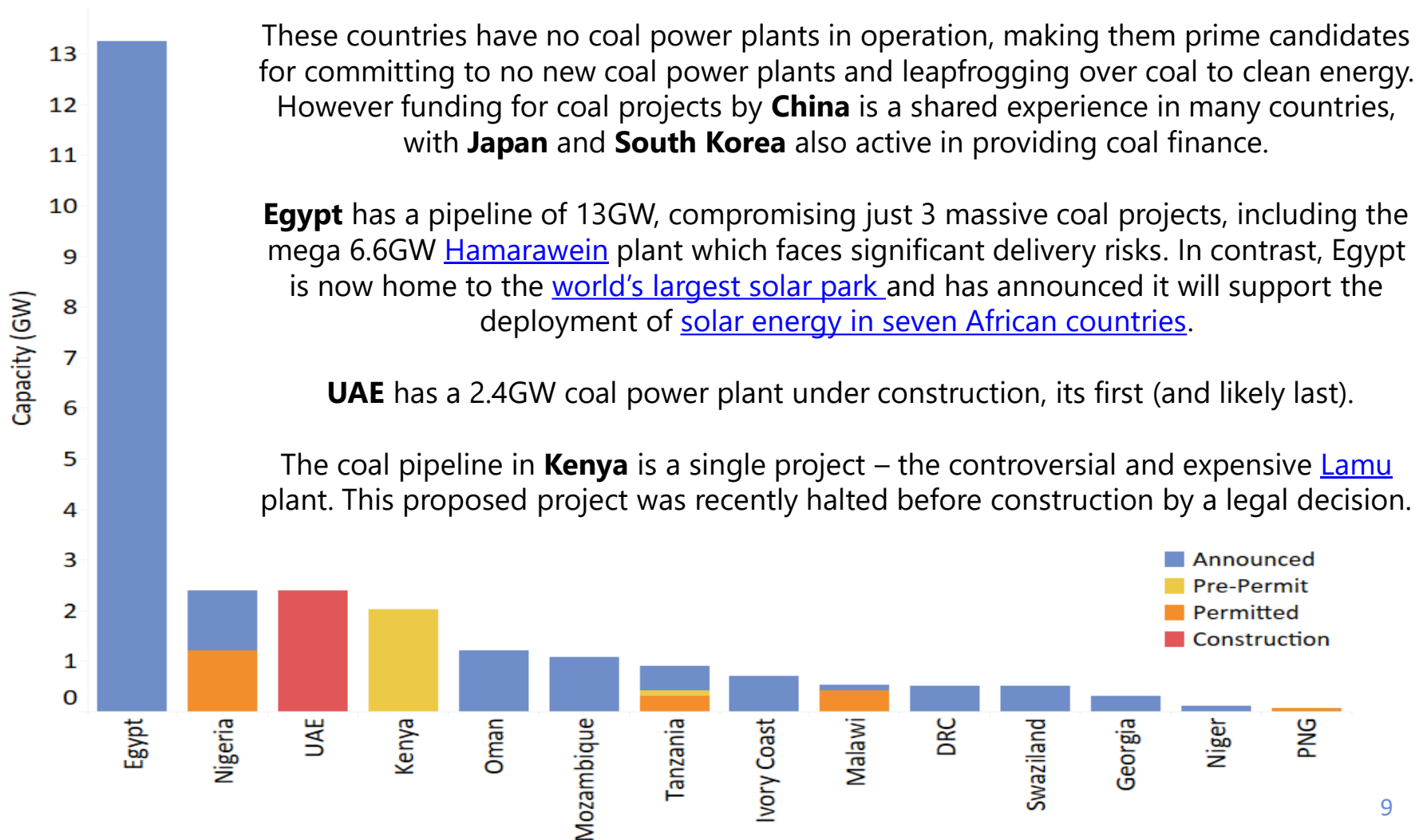
Coal power generation distribution (3)



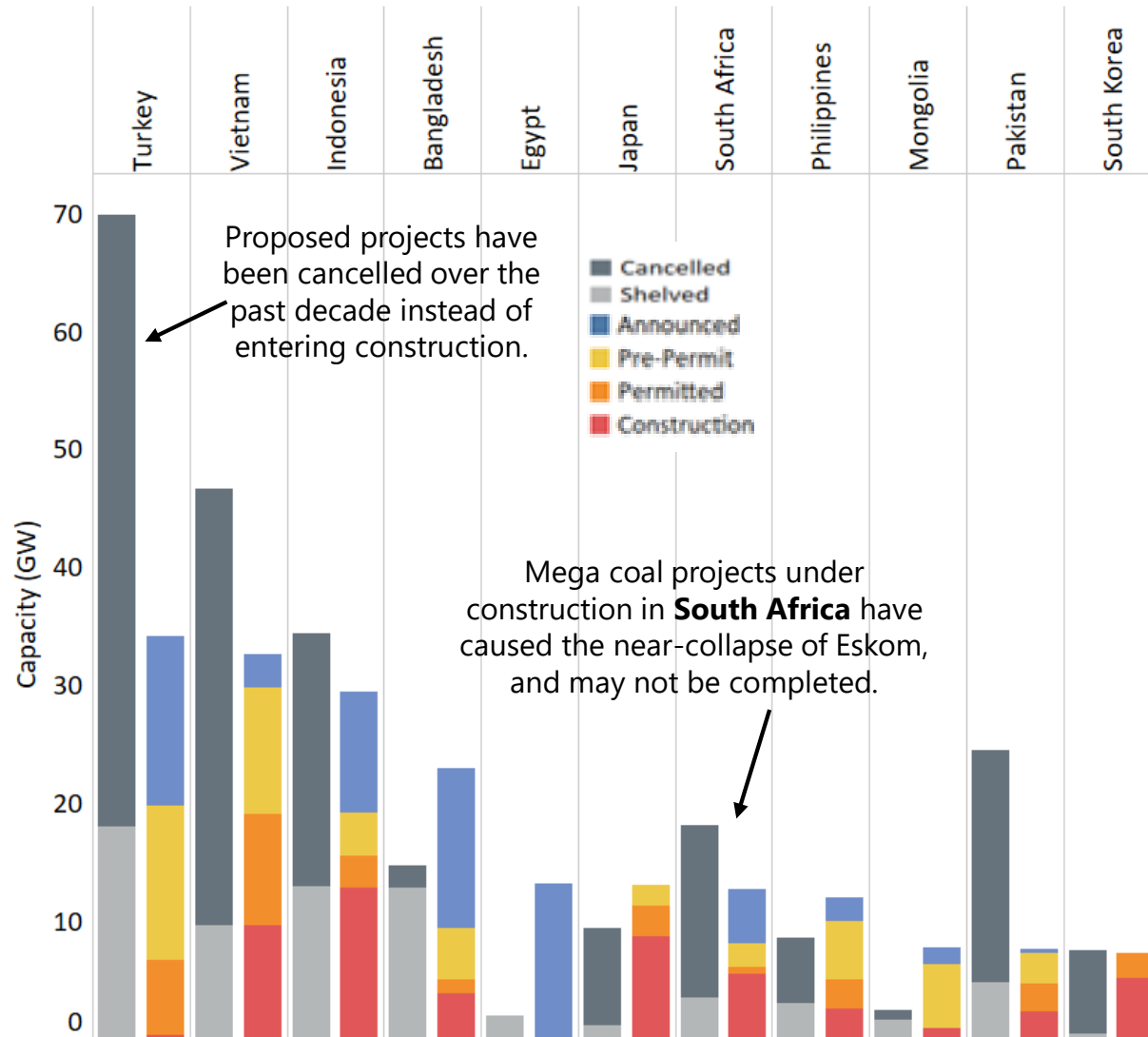
Countries with no projects in pipeline (beyond any already under construction)



Countries with no operational coal power generation but with projects in pipeline



Top coal project pipeline risk locations (after China and India)



- **Turkey** still has 34GW of coal proposals, but has commissioned only 12% of its proposed capacity since 2010.
- **Vietnam, Indonesia, Thailand, and Pakistan** have all scaled back plans for coal in their future national energy plans.
- The pipeline in each of **Egypt, Russia, and Mongolia** is dominated by a large coal plant proposal that is reliant on [Chinese financing](#).
- **Japan, South Korea, and Taiwan** have all seen a fall in projects under development, with no new large proposals since 2015.
- **Bangladesh** and the **Philippines** have either maintained or grown their planned new coal projects, but require costly [new or expanded infrastructure](#) to import coal.
- President Duterte of the **Philippines** has called for the [fast-tracking of renewables](#) to reduce national dependency on coal imports.

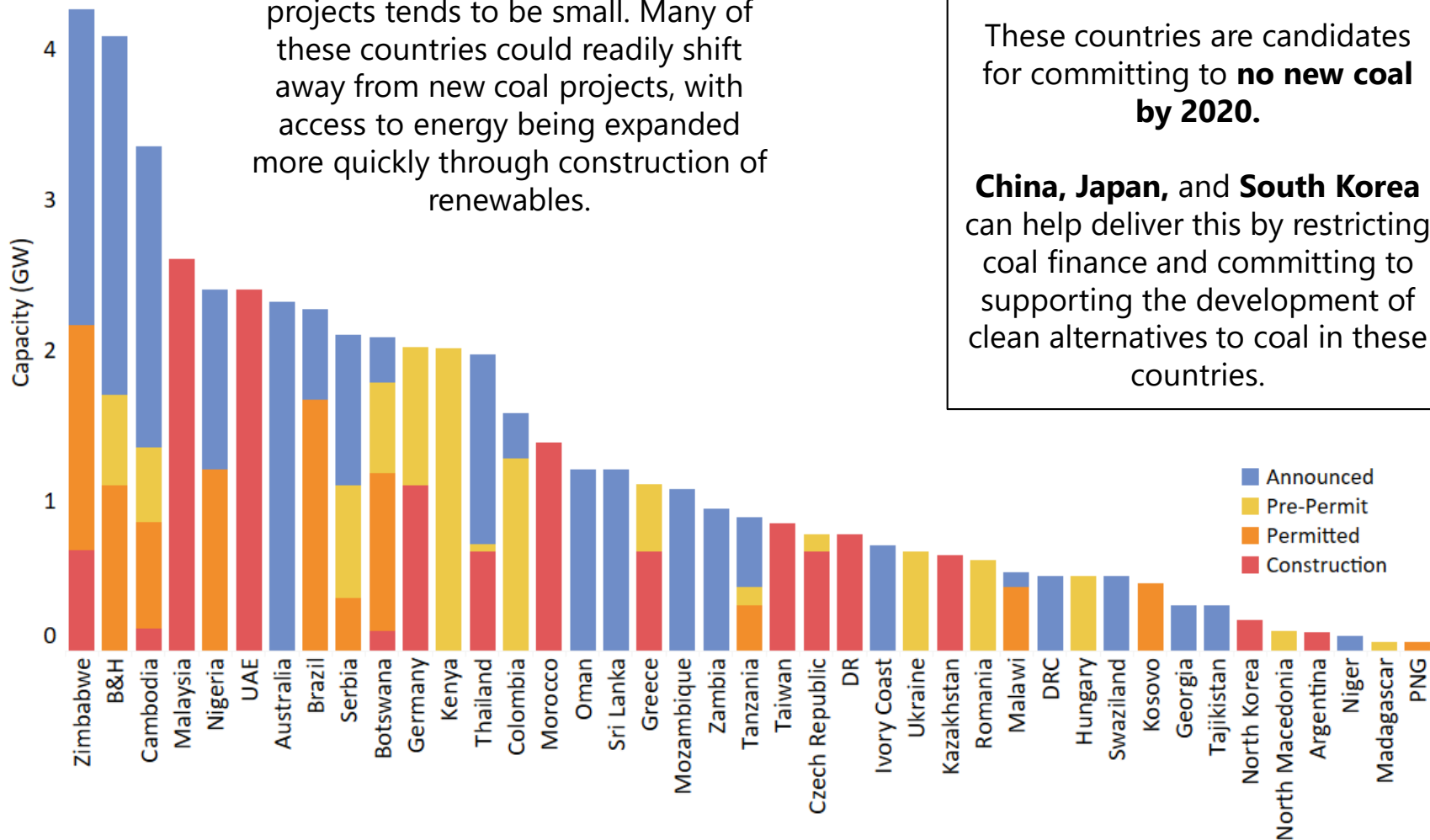
Remaining countries with projects in the development pipeline



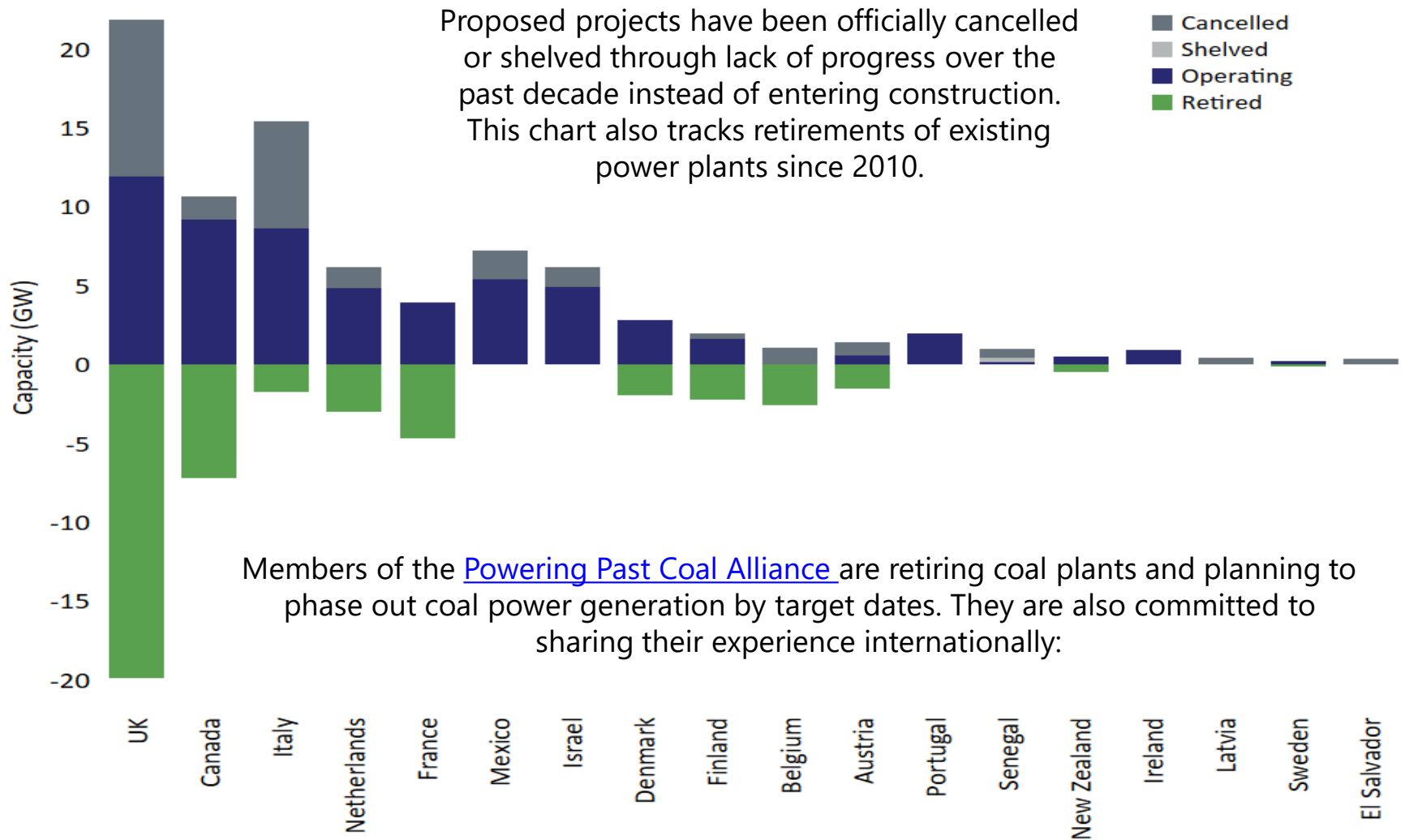
The scale of these proposed coal projects tends to be small. Many of these countries could readily shift away from new coal projects, with access to energy being expanded more quickly through construction of renewables.

These countries are candidates for committing to **no new coal by 2020**.

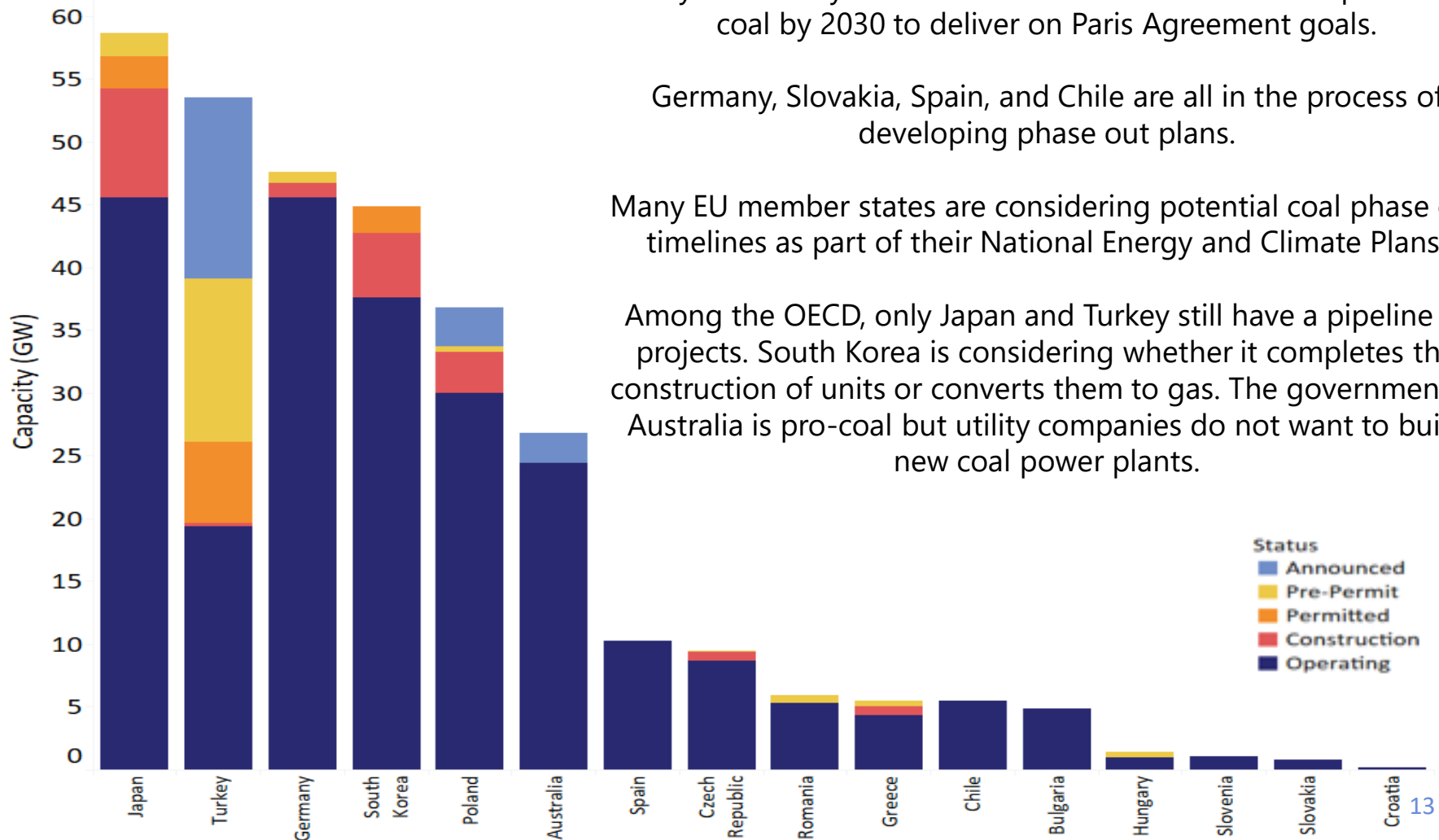
China, Japan, and South Korea can help deliver this by restricting coal finance and committing to supporting the development of clean alternatives to coal in these countries.



Curtailing coal power plant use: Powering Past Coal Alliance Members



Moving away from coal: OECD & EU28 (not including PPCA members)



Analyses identify that OECD & EU28 countries should phase out coal by 2030 to deliver on Paris Agreement goals.

Germany, Slovakia, Spain, and Chile are all in the process of developing phase out plans.

Many EU member states are considering potential coal phase out timelines as part of their National Energy and Climate Plans.

Among the OECD, only Japan and Turkey still have a pipeline of projects. South Korea is considering whether it completes the construction of units or converts them to gas. The government in Australia is pro-coal but utility companies do not want to build new coal power plants.