POLICY BRIEF | MARCH 2022

A DECADE TO ACT: Policy opportunities for China to begin a coal phase-down while working towards economic and social goals

A successful transition away from coal to clean energy is the central pillar of China's strategy to achieve carbon neutrality before 2060 and keep the global 1.5˚ Celsius target within reach. China has committed to "strictly control" new coal power projects and coal consumption over the 14th Five-Year Plan (2021-2025) period, start to phase it down during the 15th Five-Year Plan (2026-2030) (FYP), and "make best efforts to accelerate this work".

To meet these goals and to keep 1.5˚C within reach, China needs to decrease coal power generation by 25-30% over the next decade. The framework developed in the new report—A Decade of Action: A strategic approach to coal phase-down in China—offers policymakers clear next steps to begin the retirement of coal plants needed to reach China's goals during the 14th and 15th Five-Year Plan periods (2021-2030).

KEY FINDINGS

- **By retiring a small set of poorly performing, old, small, redundant, or otherwise undesirable plants (low-hanging fruit plants), China can feasibly phase-down coal power.**
- Rapid renewable deployment, efficiency improvements, and cross-region balancing in addition to the carefully structured and targeted near-term coal phase-down presented in this report can help **China achieve a power transformation that supports both carbon neutrality and the global 1.5˚C goal.**
- This comprehensive approach allows China to maintain high-quality economic growth with improved human well-being while phasing-down coal power.
- **A total of 203 GW coal power capacity (19.4% of existing capacity) can be targeted for retirements, and with the additional cancellation of new projects at early development stages, capacity would decrease even further to 981 GW by 2030.**
- These retirements would achieve significant additional benefits: large reductions in carbon and air pollutant emissions; improvement in average efficiency; large water conservation benefits low risk in stranded assets; moderate and manageable job losses; and a minimal impact on the regional grid.

RECOMMENDATIONS

The report results offer a way forward and provide ample reasons for this work to start within the next five years. In order for a coal phase-down strategy to become reality, additional planning on the parts of the national and subnational governments will be required. **Implementation begins with the following steps from both the Chinese national and regional levels:**

1. **Conduct a plant-level review** to identify an early retirement schedule and strategy, based on the report findings.
2. Analyze the renewable energy, grid, storage and transmission investment and fiscal planning to **fund these investments and to replace any lost tax revenues.**
3. Building on the estimates provided here, evaluate the job losses and their composition at the county level and **provide dedicated fiscal and capacity-building support for actions such as job training** for impacted workers.

based on findings from "A Decade of Action: A Strategic Approach to Coal Phase-Down in China"
Download the report

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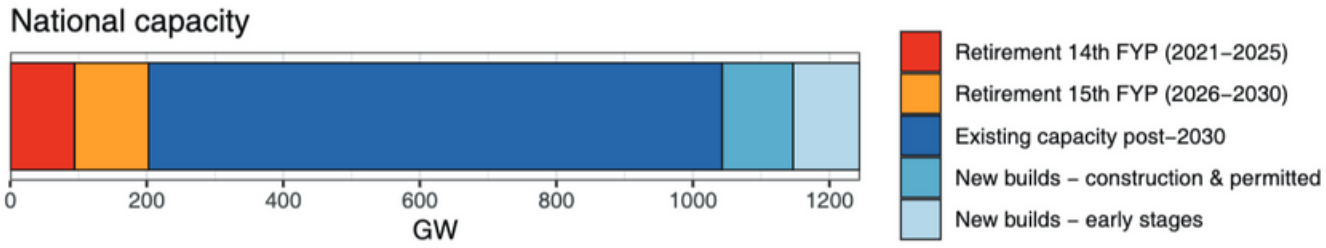
KEY FIGURES

Potential coal-fired plant retirements and new builds during the 14th and 15th Five-Year Plans



Total benefits and risks of the coal retirement during the 14th and 15th Five-Year Plans

Benefits			Risks	
Carbon emissions reduction in 2030 (% of 2020)		925 $MtCO_2$ (20.6%)	Total stranded assets between 2020 and 2030 (% of 2020 coal plants assets value)	US$25 billion (5.7%)
Efficiency improvement from 2020 to 2030		3.3%	Total job losses between 2020 and 2030 (% of 2020 coal plants jobs)	293,800 workers (33%)
Air pollutant emissions reduction in 2030 (% of 2020)	SO_2	143.8 kt (36.6%)	Reduced power generation from low hanging fruit plants (% of 2020 total electricity)	830 TWh** (11%)
	NO_x	160.5 kt (29.3%)		
	$PM_{2.5}$	25.1 kt (41.2%)		
Savings of water withdrawal in 2030 (% of 2020)		2.3 billion m_3 (23%)		

* $MtCO_2$: million metric tons of carbon dioxide; kt: metric kiloton; TWh: terawatt-hour; M_3 : cubic meters. SO_2: sulfur dioxide; NO_x: nitrous oxide; $PM_{2.5}$: fine particulate matter 2.5 microns in width.

** Note: Newly-installed solar and wind generation from 2021 to 2030 is estimated to be 2150 TWh.

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