UC San Diego
SCHOOL OF GLOBAL POLICY AND STRATEGY
21st Century China Center

POWER TRANSFORMATION LAB

LOW-CARBON TRANSITIONS IN CHINESE STATE-OWNED ENTERPRISES

KEY TAKE-AWAYS

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GPS

WORKSHOP ON LOW-CARBON TRANSITIONS IN CHINESE STATE-OWNED ENTERPRISES

FIVE KEY TAKE-AWAYS

These represent significant points made during the discussion. They are not consensus observations.

1. China's SOE reforms appear to have stagnated in place of meeting national modernization and technological goals.

The reform of state-owned enterprises (SOEs) in China has stagnated, with little progress toward previous goals such as diluting state ownership. Instead, the fous has shifted to how SOEs can serve national goals such as technology development and modernization. There is no urgent agenda for privatization. With the introduction of the national priority to develop "new productive forces," further evolution of SOEs may involve integrating future energy technologies into ongoing overall macroeconomic reforms. This stagnation is further complicated by the blurring distinctions between SOEs and non-state enterprises, e.g., through cross-ownership and minority state shares. This makes the future of SOE reforms even more uncertain. Firms most in need of decarbonization (heavy industry, electricity) have escaped ownership reforms, while the firms supporting decarbonization (electric vehicles, new energy manufacturing) are mixed.

2. Inter-enterprise competition can generate positive impacts while local governments may hold the invisible keys to the transition

Competition abounds between private enterprises and SOEs, large and small SOEs, and local and central government projects. Inter-enterprise competition is emerging as a positive force for enhancing climate commitments within conservative SOEs. On the other hand, energy security concerns transmitted through state owners have prompted (mostly) SOEs to re-centralize the role of coal since 2021. While clean energy is being deployed at record pace, so is coal.

Local governments, though in many cases not direct owners, may hold the invisible keys to SOE low-carbon transitions. Land — essential for land-intensive renewable energy projects — is a critical asset that local governments have used to leverage central SOEs to promote local employment and economic growth. The socio-economic impacts of the transition, including layoffs, bankruptcies and social instability, will be borne disproportionately by local governments. Prior SOE downsizing experiences in the 1990s have informed recent supply-side restructuring efforts which have resulted in a rough halving of the coal mining workforce. Learning from those experiences, local governments have played a significant role in recent coal mining workforce reductions.

3. Transition financing may be less certain than once thought as fiscal and lending incentives do not fully align with the low-carbon transition

Investor sentiment toward China's power sector has shifted significantly over the past year. Last year, investors showed little concern over the financing of China's power SOEs' transition. However, this year, mixed efforts toward achieving climate goals, growing SOE cash flow pressures, and systemic risks in the property sector have diminished investor confidence in the power sector. Foreign investors continue to have difficulty engaging with the market due to the lack of transparent information and difficulties in predicting the evolution of fuel prices and regulations. Fiscal incentives do not necessarily align with the low-carbon transition. SOEs receive an interest rate that is 1% lower than that afforded to private companies, after adjusting for company characteristics, though this may not spur low-carbon development. New sources of differentiated financing such as the green finance sector are growing, but the share of green loans out of total lending has hovered around 10% between 2016 and 2023. Taxes on the coal sector remain far lower than those on less carbon-intensive fuels on an effective per-carbon basis.

4. Leadership matters and there is a wealth of data to reveal managerial incentives

Turnover and change in leadership may reveal some incentives for SOEs to innovate, and there is a wealth of data that could help fill this research gap. For low-carbon transitions, leaders are driven by economic incentives and, to a lesser extent, reputational incentives. The central government redirects resources to coal-related businesses for the transition rather than coal workers and communities, creating potential just transition issues. There are policy gaps between international best practices for a just transition and the on-the-ground realities in China.

5. International collaboration remains a promising area to green Chinese SOEs' overseas projects and to provide leadership for SPCs globally.

China could demonstrate global leadership on how to transition and finance state-owned power companies (SPCs), though there have been few efforts to play a more visible role to date. Chinese SOEs' overseas investments are characterized by risk aversion. SOEs care about civil society organizations (CSOs) and media narratives in host countries, showing some degree of openness, including soliciting advice from CSOs. International engagement can be effective through partnerships among Chinese, host country and international organizations to improve information sharing and help educate SOEs. Direct international collaboration with SOEs can improve information transparency while accomplishing risk-sharing, sustainability and capacity improvement goals.

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The Power Transformation Lab at the University of California, San Diego studies the engineering and institutional requirements to deploy low-carbon energy at scale. We work with academic, government, civil society, and industry partners to advance research and solutions to the climate challenge centering on the role of the power grid. Our areas of focus include renewable energy resource planning, affordable and reliable low-carbon power markets, and the political economy of industrial policy and low-carbon transitions in firms. Learn more at pwrlab.org.

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