

China adjusts its inflated renewable
energy subsidies

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Environment for Development Initiative

China

2018

The Chinese government is lowering its subsidies for renewable energy, after researchers found that they were too high relative to the rapidly dropping global price of wind and solar technologies. The result of inflated Chinese subsidies for wind- and solar-generated power was that funding was being diverted by the central government from competing needs, such as education and healthcare, while also creating an economic climate that discouraged domestic technology innovations.

This was the finding of environmental economists from the Environmental Economics Program in China (EEPC), a Beijing-based research unit now associated with the National School of Development (NSD) at Peking University, following a review commissioned by the National Development and Reform Commission (NDRC) into the country's renewable energy subsidy policies. The NDRC is the country's 'super ministry' that oversees the formulation and execution of national economic policies, including energy policies.

After assessing the state's subsidy policies for renewable energy prior to 2016, EEPC researchers recommended a policy overhaul, including gradual reduction in subsidy rates, and using the auction mechanism to allocate subsidies to the most competitive projects.

The central government is already responding to this recommendation, outlined in the centre's policy brief, researchers say.

Until 2016, China's state subsidies for renewable energy were mostly applied in the form of uniform



A review of China's wind and solar energy subsidy policy by EfD China may lead to a significant policy overhaul from national government.

feed-in tariffs, which enabled the grid to purchase wind and solar power at higher prices, making renewable energy generation more profitable for suppliers. But as global prices for wind and solar technology fell dramatically, the previously designed feed-in tariff rates became unnecessarily high, resulting in a burden on public budgets.

In 2016, wind power was sold to the grid at US\$ 71 to US\$ 90 per MWh (or CNY 0.47 to CNY 0.6 per kWh), while solar power sold for between US\$ 120 and US\$ 148 per MWh (or CNY 0.8 and CNY 0.98 per kWh). However, in the same year, worldwide wind and solar suppliers were respectively willing to accept US\$ 40/MWh (or CNY 0.25/kWh) and US\$ 50/MWh (or CNY 0.32/kWh) on average.

On account of the price gaps, EEPC researchers recommended that the feed-in tariff rates be cut. By the end of 2016, the NDRC had pledged to gradually reduce the feed-in tariff rates in the following two years, to US\$ 60 to US\$ 86 per MWh (or CNY 0.40 to CNY 0.57 per kWh) for wind power, and US\$ 98 to US\$ 128 per MWh (or CNY 0.65 to CNY 0.85 per kWh) for solar power.

In 2017, policymakers were even contemplating abolishing the subsidy for wind power between 2020 to 2022.

However the researchers are still unable to say if the new feed-in tariffs have been adjusted to the right levels, as the actual cost of renewable energy production is usually withheld by producers.

The current subsidy policy guarantees a predetermined uniform price that all suppliers receive for the energy they generate, and there is no competition in the system. But if the policy allowed the grid to purchase some of its energy from cheaper suppliers, this will introduce competition, and push prices down to something closer to production costs. EEPC researchers say that this sort of ‘haggling

process’ would allow for the cheapest wind and solar energy. In theory, renewable energy suppliers would be willing to accept lower prices as long as they can make a profit, which implies that their final offers would approximate production costs.

In 2017, some provinces piloted the subsidy system for solar power, whereas other places still used the NDRC’s uniform feed-in tariffs. In the provinces where price competition was allowed, such as in Anhui Province and Inner Mongolia, the lowest bids were coming in at US\$ 84 per MWh (or CNY 0.56 per kWh). This is well below the NDRC’s reduced feed-in tariffs of US\$ 98 to US\$ 128 per MWh (CNY 0.65 to CNY 0.85 per kWh).

Meanwhile the NDRC has also expressed interest in collaborating further with EEPC researchers in future. The EEPC is a member of the Environment for Development (EfD) initiative, an international network of environmental economist research units in the Global South, with the head office based in Sweden.

Researchers involved

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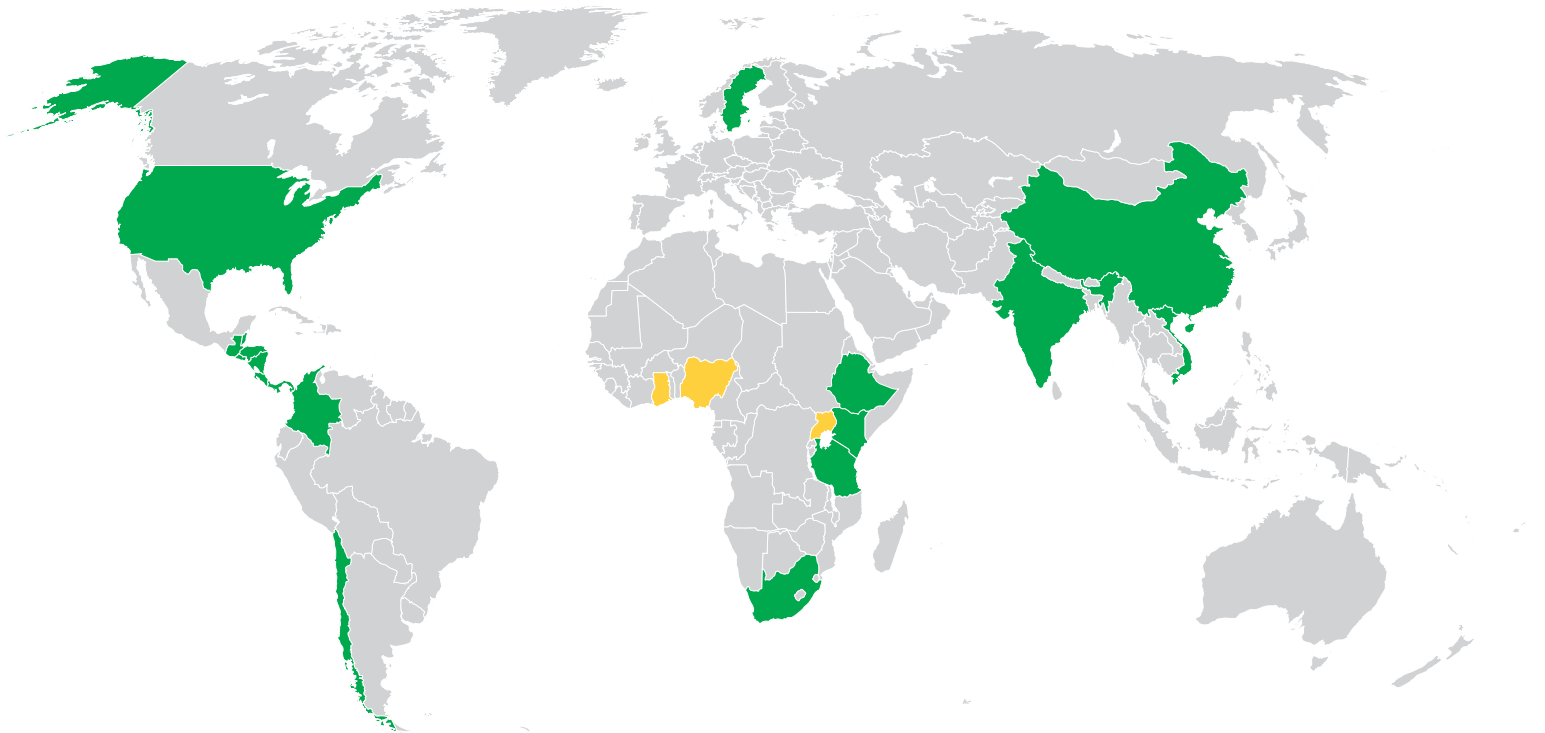
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