China's bid to fill policy vacuum

China | Slowly but surely, China's solar policy void is being filled with a 30GW auction at the heart of it. Carrie Xiao digs into the details as the draft proposals take the first steps towards official status



he long-awaited new PV policy in China has not been publicised till now. Thrown into confusion by the rumour mill, the industry could do nothing but wait.

Such vagueness has left China's recent PV market in a slump. Data released by China Electric Power Union indicates that in the first two months of 2019, China only added 349MW solar capacity while new capacity added in the first two months of 2018 is 1087MW, a 739MW year-on-year drop (68%)

China's PV market is highly sensitive to policy changes. Any significant policy released before grid parity policy would shock the whole industry. The introduction of the so-called "531" new PV policy in 2018 was blamed for the accelerated slowdown of China's restricted PV market. New capacity added throughout that year totalled 44.26GW, a 17% decrease year-on-year.

In mid-February, China's National Energy Administration (NEA), Development and Reform Commission (NDRC) and the Ministry of Finance organised a symposium on PV power generation management, seeking advice from industry enterprises, experts and third-party organisations on PV prices and scale in 2019. This new policy under discussion and its completion became the focus of all sectors of the industry.

On 12 April, the new policy paper for China's PV industry was finally released. The General Affairs Department of the NEA opened the "Notice on Solicitation of Opinions on Wind and PV Project Construction Management in 2019" for public comments. Although it was still a draft

proposal, the fact it was released by the National Energy Administration makes it an official record rather than a paper only for discussion

This official notice is basically consistent with the draft from February. The NEA has proposed to prioritise the construction of grid parity wind and PV projects, which met the standards issued by the NEA on 10 April.

Regional authorities must submit the first batch list of areas suitable for building wind and solar projects at grid parity by 25 April.

This document clarifies the timing and order of these project applications. In short, the provincial power grids will determine the unsubsidised projects by the end of April. The subsidised projects will be identified by the end of May.

New PV projects requiring national

Table 1: Proposed 2019 feed-in tariff policy for China's **PV** industry (draft)

subsidy support are to be determined by a market mechanism and competitive bidding. Starting from 2019, the subsidised projects will be managed by categories, namely poverty alleviation, residential, ordinary power plants (about 6MW or more), distributed C&I (less than 6MW), national special planning or demonstration and interprovincial power transmission channeling PV projects.

Poverty alleviation and residential projects aside, all other projects will be tendered locally on a competitive basis. The proposal mentions bids should clarify technical standards, environmental protection, safety and quality, and construction conditions among other requirements.

Proposed pricing policies catering to different types of projects have also changed in line with the above classifications.

According to the "Interim Measures for the Administration of Additional Subsidy Funds for Renewable Energy" formulated by the Ministry of Finance, the total subsidy budget for new PV projects in 2019 is RMB3 billion (US\$450 million), of which RMB750 million (US\$112 million) is used for residential PV projects (equivalent to 350MW). The competitive bidding projects will get the remaining RMB2.25 billion (US\$336 million), not including the PV poverty alleviation projects.

Prices for poverty alleviation projects will remain unchanged at RMB0.65, 0.75 and 0.85/kWh.

Time and Method	Full tariff for centralised plant (yuan/kWh)		Decentralised industrial /commercial projects (power generated for self-consumption with surplus power sent back to grid) (yuan/kWh)	Residential PV capacity (yuan/ kWh)	Poverty alleviation projects (yuan/kWh)
	Tendering and bidding score		Bidding score	No bidding	Fixed tariff, priced per different regions
Quarter 1and Quarter 2	Region I	0.4	0.10	0.18	Region 10.65
	Region II	0.45			
	Region III	0.55			
Quarter 3	Region I	0.39	0.09	0.18	Region II0.75
	Region II	0.44			
	Region III	0.54			
Quarter 4	Region I	0.38	0.08	0.18	Region III0.85
	Region II	0.43			
	Region III	0.53			

The full subsidy received by decentralised C&I projects (power generated for self-consumption with surplus power sent back to grid) is RMB0.10/kWh (US\$0.0149). One cent will be deducted every quarter from the third quarter on. The price for fully subsidised C&I projects is based on that of centralised PV plants located in that area.

One cent will be deducted for centralised ground-mount plants every quarter from the second quarter on.

The adjusted subsidy arrangements and competition rules will undoubtedly bring about major changes in China's PV power generation management mechanism in 2019, thus affecting the whole market.

Shi Jingli, a researcher of the Energy Research Institute of the NDRC, offered her opinion of this document after its release.

"RMB2.25 billion will be used specifically to support competitive bidding projects, which are ranked from low to high nationwide based on the revised power price. 2019 PV pricing policy has not been issued, but the revised quotation will be used for project rankings," says Jingli. "Region I,II, III [based on irradiation levels], power plants and decentralised power plants will be assigned revised scores from top to bottom. Various projects in different regions are able to remain competitive and cost effective. The notice is consistent with previous benchmark power price and the February symposium draft."

Wang Sicheng, a member of Expert Advisory Committee of China PV Industry Association, had analysed the subsidies before. "If the previous draft was not changed, the total controlled amount of subsidy will be around RMB3 billion (US\$447 million), which equals to 60 billion kWh priced at RMB0.05/kWh (US\$0.007/ kWh). Let's say the average utilisation hours of 1,200, it is expected that 50GW of capacity will be listed as subsidised projects through tendering. This number is quite considerable. Even if subsidy per kWh is controlled at around an average of RMB0.07, there will still be 30GW of capacity, large enough to maintain the stable development of the domestic PV market."

Keeping everybody happy

It is difficult to take account of all the different opinions and finalise the policy. This is a multi-player game with many problems to be solved all at the same time. One of the key issues is subsidy, past and present.

What is the scale of subsidy required for PV markets in 2019? Now that the first

Project type		Prediction of installed capacity (GW)	
Residential PV capa	acity	3.5	
Poverty alleviation	projects	2	
	normal power plants, decentralised commercial/ industrial	30	
Bidding projects	national special planning or demonstration and inter-provincial power transmission channeling PV projects	3	
Unsubsidised proje	ects	2	
Total		40.5	

Table 2. Forecast of China's photovoltaic installation volume in 2019 problem has been solved, when will the subsidy in arrears be paid? This year's new policy will not only arrange the subsidies for new PV projects, but also solve the problem of subsidy in arrears.

Calculations from the Gofa Institute and the Green Energy Think Tank show that by the end of 2018, China's annual renewable energy subsidy gap is about RMB50 billion (US\$7.4 billion) and the duration for subsidy in arrears is three years, totalling RMB150 billion (US\$22.3 billion). Projects listed in the eighth batch of subsidy catalogues are not included. PV subsidies in arrears reached RMB80 billion (US\$11.9 billion). Such a huge amount renders the problem difficult to be resolved in a short period of time. The related authorities hope that there will be a reasonable solution to gradually resolve the same issue for power plants already built.

Many mainstream companies in the industry reacted strongly towards this issue. Jinko CEO Chen Kangping said: "Subsidy in arrears restricted the further development of PV industry to a large extent and even threatened the survival of some power plant investors."

He called on the authorities to appropriately raise additional charge standards for renewable energy tariff and proposed to reduce subsidies for coal-fired power plants to make up for insufficient funds allocated to renewable energy.

PV Tech Power found out that the current additional charge standards for renewable energy tariff (to be collected by a fund for all power sales, power used by residential and agricultural production not included) is RMB0.019/kWh (US\$0.0028/kWh), which has been implemented since January 2016.

Sungrow chairman Cao Renxian proposed to increase the charge standards to RMB0.029/kWh. "There are two reasons for the huge gap in renewable energy subsidies. First, current collection standards are comparatively low. It is difficult to meet the needs of renewable energy development. Second, the self-owned power plants have not paid the charge in full and have accumulated nearly RMB80 billion in arrears."

Cao Renxian advised that the authorities should intensify their efforts to complete collection of additional charges of renewable energy tariffs in arrears over the year as soon as possible and at the same time, collect the charge in full and on time from now on.

In addition to subsidies, the industry has also debated the scope of "Top Runner" scheme, the management approach for decentralized PV and a series of other refined policies.

The start of China's PV market in 2019 is subject to relevant policies. The new policy draft is still under discussion. The industry is still waiting. However, a quarter has already passed in 2019 and there is not much time left for businesses.

Chint president Lu Chuan said: "From policy release to its implementation, it takes time for market to respond. It takes time for provinces and cities to understand the new policy and to prepare the tendering projects. Projects will not be implemented until the fourth quarter. The enterprises and power plant owners will face tight time constraints."

The industry expects that China's new PV policy will be introduced in mid-April, 2019, as this publication goes to press, while others claim that it will take seven months at the latest.

A PV company executive said. "It is really bad if it comes out in July, by October northern China has already started to freeze. If it is really the case this year, then the domestic market can be seen as 'shocked'".

Wang Sicheng said: "We've solicited opinions on this draft three times. Most of the opinions were accepted by the industry and we expect the new policy to be introduced as soon as possible."

What will be the final new policy like? Let's wait and see.

At the time of press Beijing was continuing to update its policies. This article is to date as of April 25 2019.