

Overview of the 2020 Wind and Solar PV Construction Plan

The National Energy Administration (NEA) published the *2020 Wind and Solar PV Construction Plans* in March 2020.⁴ The policy direction remains the same compared to 2019. Subsidy free projects, projects subsidized via tenders, and subsidized projects which voluntarily opt to be subsidy-free in the future are the three key focus areas. The government aims to carry out a strict monitoring process and enforce power transmission and consumption capacity to support. In general, the continuation of policy aims to be conducive to transitioning to subsidy-free wind and PV in the beginning of the 14th Five-Year period.

Power grid operators (TSOs)⁵ together with the China Renewable Energy Monitoring Centre are responsible to measure and evaluate the 2020 consumption capacity by province. The results will be the foundation to determine the 2020 incremental wind and PV power capacity and it applies to both subsidy-free and tendering projects. NEA aims to share the information with public in March 2020.

Considering the impact of COVID-19 outbreak on the delay of the administrative process, NEA extends the application deadline of new wind and PV subsidy-free projects from mid-February in the policy draft to the end of April in the official document. Nevertheless, new projects should still commence construction in 2020.



The 13th Five-Year (2016-2020) development targets and 2020 consumption capacity by province are the two pre-evaluation criteria to determine the newly added capacity of subsidized projects, while there is no construction limit on subsidy-free projects.

Utility-scale onshore and offshore wind

It is mandatory to determine the developers and feed-in tariffs (FiTs) of new subsidized utility-scale onshore and offshore wind power project through tenders. Moreover, in provinces that have achieved the *13th Five-Year Plan* capacity targets⁶, local governments are not allowed to kick off tendering process.

Distributed onshore wind

Distributed onshore wind projects do not need to participate in tenders to enjoy subsidies, but the construction capacity is under control. For those who participate in distributed power market trading pilots (subsidy-free), the construction capacity has no limit.



The total subsidy budget for new PV projects in 2020 is RMB 1.5 billion, of which RMB 1 billion is for utility-scale PV and commercial and industrial distributed PV determined through tenders. The remaining RMB 500 million is for household PV.

Utility-scale PV, commercial and industrial distributed PV

The subsidized projects will be determined through tendering in a national ranking system. The subsidy for a single project is calculated as *required subsidy/kWh⁷ x installed capacity x utilization hours determined by NEA*. Bidders should be new projects located in provinces that have been labeled with orange or green in the latest PV market early warning results and with land use conditions.

Household PV

Subsidized household PV are not supported via tenders but will receive feed-in premiums (FiPs) based on the first come first served principle depending on the date of grid-connection. The subsidy for a single project is calculated as *subsidy/kWh which is yet to be published x installed capacity x 1000 hours*.

⁴ "国家能源局关于2020年风电、光伏发电项目建设有关事项的通知, 国能发新能〔2020〕17号," National Energy Administration, 5 March 2020, accessed at http://zfxgk.nea.gov.cn/2020-03/05/c_138862190.htm;

⁵ "《国家能源局关于2020年风电、光伏发电项目建设有关事项的通知》解读," National Energy Administration, 11 March 2020, accessed at http://www.nea.gov.cn/2020-03/10/c_138862170.htm.

⁶ State Grid Corporation of China, China Southern Power Grid and Inner Mongolia Grid.

⁷ The targets exclude subsidy-free projects and nominated projects binding with the inter-provincial and inter-regional power transmission channel.

⁸ Required subsidy = the guiding feed-in tariff – the bidding feed-in tariff.

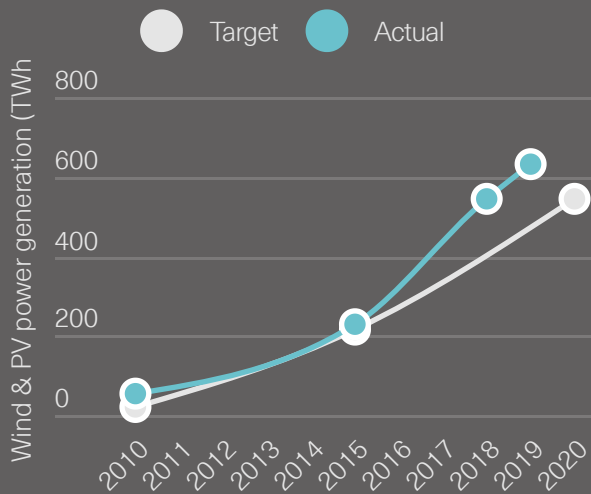
Expert commentary on 2020 and 2021 wind and solar PV development



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Source: Energy Research Institute of National Development and Reform Commission (ERI of NDRC), April 2019

Capacity forecast

According to the current policy environment and preparation status of new projects, it is expected that in 2020, the incremental wind power capacity will exceed 30 GW and solar PV will be over 40 GW. However, as COVID-19 has affected the import of wind turbine components and export of PV model components, as well as the application process of new projects, the government may have follow up policies.⁸ If the deadline of grid-connection is extended, there will be less newly installed capacity in 2020.

Policy trends analysis

It is clear that from 2021, new onshore wind power projects will be subsidy free and offshore wind power subsidies will be covered by local provinces. It is expected that solar PV will have achieved nationwide subsidy-free in two years, possibly in 2021. Therefore, non-incentive policies will be more significant in facilitating renewable energy development in the future. The mandatory renewable consumption mechanism is a major measure to maintain the growth of installed capacity by increasing the quota targets year by year. Evaluation of provincial consumption capacity to absorb additional renewable power generation may become a long-term measure, as it is an important reference for both project approval and investment decisions. The wind power and solar PV market early warning results are expected to be published annually, while the government may update the evaluation index based on the new subsidy-free environment.



Policy reflections

An increasing number of new installed wind power and solar PV projects will participate in power markets when the sectors become completely subsidy-free after 2021. As PV projects mostly bid daytime hours, it will receive relatively high market prices and be more competitive compared to wind. So in order to reduce the economic risks for wind power, there is a possible and feasible way, namely to continue adopting tendering mechanism to determine FITs which may be same or even lower than coal power FITs, and carrying out tendering FITs under the mandatory purchase of minimum utilization hours. In addition, in order to expand the scale of distributed power market trading, the pricing department should firstly set up a clear standard to calculate transmission and distribution tariffs in power distribution grids without considering the cost of high-voltage grids.



⁸ 《国家能源局关于2020年风电、光伏发电项目建设有关事项的通知》解读, National Energy Administration, 11 March 2020, accessed at http://www.nea.gov.cn/2020-03/10/c_138862170.htm.