

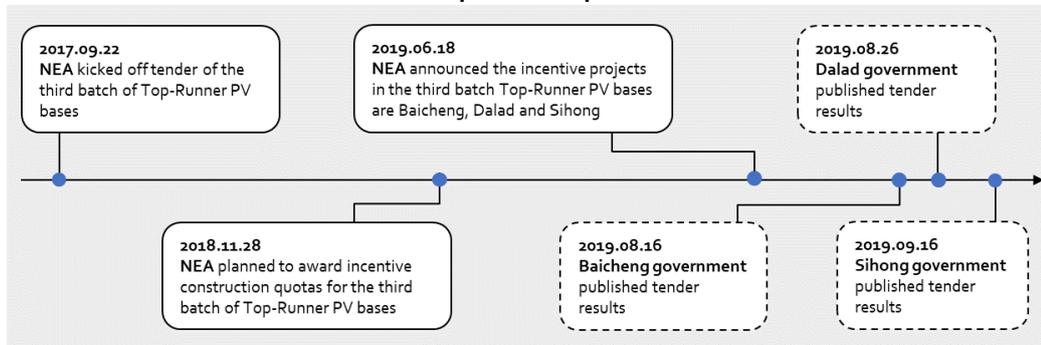
China Energy Policy Newsletter: October 2019

1. China energy transition updates

NEA publishes results of latest PV Top-Runner tenders

NEA has published bid awards for the incentive projects for the third batch of PV Top-Runner bases, showing continuing price improvement. From 2015 to 2017, the Chinese government held three rounds of solar PV Top-Runner pilot projects, which are aimed at using competitive tenders to encourage low-price, high-efficiency solar PV projects. In November 2018, NEA awarded incentive construction quotas to three PV Top-Runner bases in the third batch that had the best performance. The evaluation criteria include compliance with regulations on land use, grid connection times, construction of supporting transmission grids, and tariffs compared to the local benchmark PV feed-in tariff (FIT).¹ PV Top-runner bases in Dalad, Inner Mongolia; Baicheng, Jilin; and Sihong Jiangsu each received an incentive quota of 500 MW.²

Timeline of the third batch of PV Top-Runner pilots



Source: National Energy Administration (NEA), Baicheng government, Dalad government and Sihong government, accessed in September 2019

From August to September 2019, three counties published tendering results for their respective incentive Top-Runner projects.³ The winning prices all declined compared to the existing Top-Runner PV bases in the three counties, and the awarded price in Dalad is lower than the local benchmark FiTs of coal. The average bid-winning price in Sihong is slightly higher due to its lower solar irradiance and the higher cost of integrating PV with a fishery, which is the business model of the project. The installed capacity of a single project is 100 MW. China General Nuclear Power Corporation and China Huaneng Group both won the bids in all the three counties: China General Nuclear Power Corp. won bids totaling 400 MW and Huaneng won bids for 300 MW. All projects should connect to the grid by the end of June 2020.

Comparison of winning Top-Runner bids and coal benchmark FiTs

Unit: RMB/kWh	Baicheng	Dalad	Sihong
Bid-winning price of the incentive project in August 2019	0.38	0.26-0.28	0.40
Bid price of the incentive project in August 2019	0.36-0.39	0.24-0.34	0.39-0.45
Local benchmark coal power FIT	0.3731	0.2829	0.391
Bid-winning price of the third batch Top-Runner project in March-April 2018	0.41-0.45	0.34-0.36	0.49-0.53

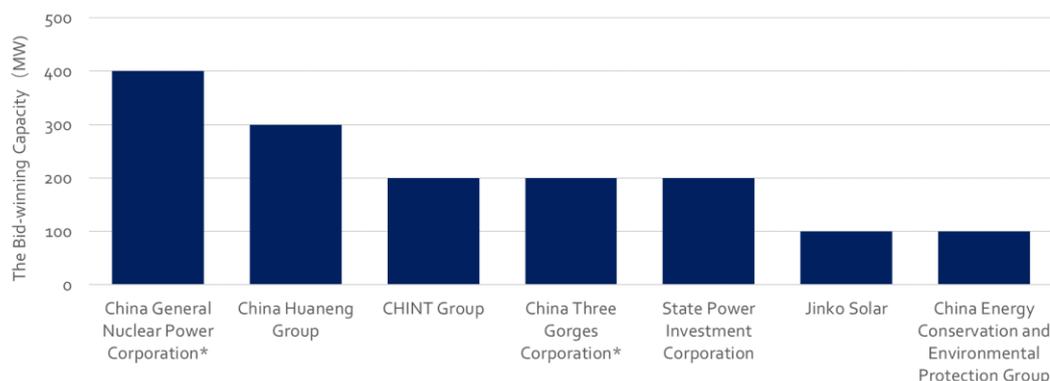
Source: Baicheng DRC, Dalad DRC and Sihong DRC, accessed in September 2019

¹“国家能源局综合司关于光伏发电领跑基地奖励激励有关事项的通知, 国能综通新能〔2018〕168号,” National Energy Administration, 28 November 2018, accessed at <http://www.pymeng.com/2018/11/28/5615/>.

²“国家能源局综合司关于公布第三期光伏发电领跑基地奖励激励名单的通知,” National Energy Administration, 18 June 2019, accessed at http://www.nea.gov.cn/2019-06/18/c_138153279.htm.

³“白城光伏发电领跑奖励激励基地推荐投资企业评优结果公示,” Baicheng Government, 16 August 2019, accessed at http://www.jlbc.gov.cn/xxgk_3148/gsgg/201908/t20190816_720497.html; “达拉特光伏发电领跑奖励激励基地推荐投资企业评优结果公示,” Dalad Government, 26 August 2019, accessed at https://www.glass.com.cn/glassnews/newsinfo_242989.html; “泗洪光伏发电领跑奖励激励基地入选企业名单,” Sihong Government, 16 September 2019, accessed at <http://www.sihong.gov.cn/sihong/tzgg/201909/ef71329e81f64c819a4c7ccee1d4025.shtml>.

Bid-winning enterprises and capacity distribution



Note: *China General Nuclear Power Corporation and China Three Gorges Corporation includes joint bids with other companies. Source: Baicheng DRC, Dalad DRC and Sihong DRC, accessed in September 2019

China will adopt market-based coal power pricing mechanism starting in 2020

Starting in 2020, China's coal power prices will shift from fully government regulated to partially market based, though they will remain capped. The current benchmark coal power feed-in tariff (FiT) has two parts, a baseline tariff plus a floating tariff, both set by the National Development and Reform Commission (NDRC). The NDRC adjusts the floating tariff depending on the price of raw coal, implying power generators and electricity consumers share the risk of fluctuation in coal prices, while maintaining relatively stable power prices.⁴

The share of market trading electricity from coal based on monthly and annual contracts has now reached 50% and coal power contract prices have been significantly lower than the benchmark coal power FiTs. In September 2019, the State Council announced a shift to a "baseline tariff + market-based floating tariff" mechanism instead of the benchmark FIT for coal power plants that have not yet joined market trading.⁵ Power generators, electricity retailers, and large electricity users will determine the proportion of floating tariff through negotiation or bidding. The floating tariff can rise by a maximum of 10% (after 2021) at most and the downside shall not exceed 15%. To prevent price increases for industrial and commercial customers, tariffs are allowed to increase only after 2021—so for now, only the downside price adjustment will be permitted.

China's carbon market adopts emission intensity rather than emission cap

In the end of September 2019, the Ministry of Ecological Environment proposed two carbon emission allowance distribution mechanisms for major power sector emitters including captive power plants and combine heat and power (CHP) units. Both plans proposed to determine the carbon allowance based on carbon intensity control rather than an emission cap at the early stage of the national carbon market. This provides flexibility for the total emissions of obligated entities (coal plants and plant owners) and encourages them to meet the targets by improving efficiency without reducing output.⁶ China's carbon emission intensity dropped by 45.8% compared with 2005 and non-fossil energy accounts for 14.3% of total energy consumption in 2018. China's NDC in the Paris Agreement was completed three years ahead of schedule.⁷ The proposals provoked controversy internationally, since due to the rapid growth of China's GDP, the carbon-intensity based carbon market and NDC may not contribute significantly to global carbon emission reduction.⁸ Also, from a renewable energy perspective, the proposals do not give any market-based carbon price signal for promoting green energy as a substitution for coal power.

⁴ "2019 煤电联动最新消息：明年取消煤电价格联动机制 煤电联动是什么意思," Xinhua News, 27 September 2019, accessed at <http://www.chinairn.com/hyzz/20190927/111750603.shtml>.

⁵ "国家能源局关于下达 2019 年煤电行业淘汰落后产能目标任务的通知,国能发电力[2019]73 号," National Energy Administration, 06 September 2019, accessed at http://zfxxgk.nea.gov.cn/auto84/201909/t20190929_3778.htm.

⁶ "省市试点碳排放权交易市场取得显著成效 建设有中国特色的全国统一碳市场," 北极星售电网, 30 September 2019, accessed at <http://shoudian.bjx.com.cn/html/20190930/1010791.shtml>.

⁷ "我国碳排放强度明显下降," 北极星售电网, 10 September 2019, accessed at <http://shoudian.bjx.com.cn/html/20190910/1006304.shtml>.

⁸ Juan Cole, "China met carbon intensity goals 3 years early, but it isn't nearly enough," Informed comment, 28 March 2018, accessed at <https://www.juancole.com/2018/03/carbon-intensity-nearly.html>.

2. Recent Concerned Energy Issues

On 20 September 2019, the State Council Information Office and the National Energy Administration summarized China's development achievements over the past 70 years and answered questions on energy policy issues.⁹ The following are four key points:

QUESTION 1

What is China's plan for the high-quality development of the energy industry?

The government has three priorities. **Setting targets scientifically:** To improve the overall quality of energy supply based on the premise of energy security, the government will focus on increasing high quality supply, optimizing resources, improving energy efficiency and achieving breakthrough on major technical equipment. **Balancing energy consumption and green development:** China expects total energy consumption will increase with the improvement of quality of life, but China will continue the policy of Double Control of total energy consumption and energy consumption intensity. **Setting evaluation criteria scientifically:** Evaluation criteria and policy guidance should involve collaboration with industry, and take into account environmental protection, and fiscal and taxation policies and plans. The government will continue to develop scientific standards in key fields, improve statistical data mechanism, and increase the timeliness, comprehensiveness, and authority of energy policies.

How will the government secure oil and gas supplies?

QUESTION 2

In 2018, the central government has made it clear that it will increase the exploration and development of crude oil. Domestic crude oil production is expected to keep rising from 2019, reaching 191 million tons by the end of the year, and 200 million tons by 2020. At the same time, China will not rely on oil imports from specific countries, therefore the recent political instability in the Middle East will not affect China's crude oil supplies. In addition, China will not be able to import crude oil from the United States due to high tariffs in the absence of an agreed outcome to the trade war. To ensure the supply of natural gas, the government has actively promoted the continuous increase of domestic natural gas production, aiming to reach 10 billion cubic meters of new production annually in 2019 and 2020. By the end of 2020, annual production will reach 180 billion cubic meters. In addition, China will strengthen the construction of domestic and international pipeline network and gas storage facilities, and comprehensively strengthen the natural gas supply and marketing system.

QUESTION 3

Is China going to build more thermal power plants?

A major measure to reduce coal consumption in China is by increasing the proportion of thermal coal and reducing industrial raw coal consumption. The amount of coal used in newly-built thermal power plants comes from the reducing industrial coal, therefore the total amount of coal does not increase, and this will reduce emissions of pollutants such as sulfur dioxide, nitrogen oxides and particulates. 80% of the operational 1,000 GW thermal power units have completed emission retrofits. Coal-fired power units will improve the coal consumption structure without a linear increase in coal consumption. In addition, the expansion of the clean energy industry is a development goal for the 14th Five-Year Plan period, and necessary for achieving the goal of non-fossil energy accounting for 20% of primary energy consumption by 2030.

⁹“新闻办就中华人民共和国成立 70 周年能源发展成就举行发布会”, State Council, 23 September 2019, accessed at http://www.china.com.cn/zhibo/zhuanti/ch-xinwen/2019-09/23/content_75234346.htm.

How effective is the promotion of clean heating in North China?

QUESTION 4

In 2017, the government issued the *North China Clean Winter Heating Five-Year-Plan*. By the 2018 heating season, the clean heating rate in the region reached 50.7%, 0.7 percentage points above the target. The region replaced raw coal consumption of about 100 million tons, 26% higher than expected. The clean heating rate of the 28 major cities covered by the plan was 72%, and rural areas was 43%. The air quality of the Jing-Jin-Ji region has improved in part as a result of these heating measures. China will consume an estimated 300 billion cubic meters of natural gas in 2019, of which domestic production will account for about 57%. The fuels switching program from coal to gas will continue. At the same time, the scale of natural gas heating equipment manufacturing has expanded, and geothermal and biomass clean heating technologies are also improving.

3. Policy monitor

MEE sets requirements on ecological environment supervision

Opinions on Further Deepening Eco-Environmental Supervision Services to Promote High-quality Economic Development, MEE Comprehensive [2019] No.74

The policy requires accelerating the formulation and implementation of ecological red line policies, environmental quality baselines, resource utilization caps and market access lists. Standardization of ecological environmental project approval is necessary, and the evaluation content should be simplified for projects that have completed environmental impact assessments (EIA) during the planning process. The government also aims to issue a guidance soon on credit ratings, covering EIAs, pollutant discharge licences, dangerous good businesses, ecological environment supervision, and operation and maintenance of environmental protection equipment. The inspector will improve the accuracy of supervision results by using off-site technologies such as satellite remote sensing and drones.

2019/09/10

http://www.mee.gov.cn/xxgk2018/xxgk/xxgk03/201909/t20190911_733474.html

NEA issues targets for 2019 coal power phase out

Notice on the Publication of the Target and Task to Eliminate the Outdated Capacity in Coal Power Industry in 2019, NEA Electric Power [2019] No.73

The Chinese government plans to phase out 8,664 MW of outdated coal-fired power plants in 2019, with Guangdong and Henan provinces leading the way. A series of elimination targets are set including condensing units with capacity under 300 MW, retrofitting units do not meet consumption and emission standards and outdated CHP units with heating radius less than 15 km in Jing-Jin-Ji Area, Yangtze River Delta and Fenwei Plain.

2019/09/06

http://zfxgk.nea.gov.cn/auto84/201909/t20190929_3778.htm

Mid-to-long term power trading oversight roles set

Notice on Guiding the Enforcement of Supervision of Mid-to-long Term Power Trading, NEA Supervision [2019] No. 70

According to the policy, the National Energy Administration (NEA) and its local supervisory authorities should jointly lead electricity exchanges and market management committee in drafting market trading rules. Electricity exchanges and power dispatch centers are on duty of accomplishing information publication and reporting. Any unfair competition such as cheating on bidding prices is forbidden within market entities. Grid companies should meter and charge T&D tariffs based on the settlement rules. NEA and its local supervisory authorities can partially or fully stop trading if market entities do not obey the market rules or their market shares are too high to enable real price competition.

2019/09/04

http://zfxgk.nea.gov.cn/auto92/201909/t20190918_3697.htm

NDRC sets 2021 targets for small coal mines closure

Noticing on Issuing the Work Plan for Disposal of Different Categories of 30,000 Tonnes/Year and Below Coal Mines, NDRC Energy [2019] No. 1377

The government aims to control the number of coal mines of 30,000 tonnes and below annual production to under 800 by 2021, of which the North and Northwest regions should completely withdraw and the rest regions should withdraw 50% of such coal mines compared to 2018. The government will prioritize closure of coal mines in environmentally sensitive regions, mines with severe ecological damage, or mines built after 2015 without approval. Coal mine owners should carry out environmental compliance and ecological restoration on site.

2019/08/19

http://www.ndrc.gov.cn/gzdt/201908/t20190828_945527.html