



Renewable energies in China – legal update

As China's policymakers seek to boost the country's renewable energy sector, a series of policies and regulations has been announced, including the revision of the Renewable Energy Law and the removal of a policy requiring 70 per cent of the equipment for any Chinese wind farm project to be domestically produced. This briefing reviews the latest changes to the legal framework of China's renewable energy sector and explores how they may affect the industry.

Background: revision of wind and solar power targets

China's central government is preparing plans for a substantial increase in its use of wind and solar power over the next decade, aimed at raising the proportion of renewable energy to 15 per cent of total energy consumption by 2020. Since May 2009, policy makers have been repeatedly cited as saying that the National Development and Reform Commission (NDRC) is in the process of drafting a plan for the development of the renewable energy sector, and is now contemplating revised targets of over three times the levels of earlier targets. By way of example, the existing 'Medium and Long-Term Development Plan for Renewable Energy' released by the NDRC in August 2007 sets targets for 2020 amounting to 30 gigawatts (GW) installed capacity for wind power and 1.8GW for solar power. It is said that the goal for 2020 in the new plan could amount to as much as 150GW for wind energy and 20GW for solar energy.

In line with this, in July 2009 the Chinese Ministry of Finance announced the 'Golden Sun' subsidy scheme, which will support at least 500 megawatts (MW) of photovoltaic (PV) installation over the next two to three years. Several Chinese provinces have also announced PV targets and supportive policies.

Even more ambitious plans are in place for wind power, with the government intending to push forward seven wind power 'mega projects', reaching a combined capacity of around 120GW by 2020. This means that wind energy would be a bigger source of power than

nuclear power, for which the capacity levels have been anticipated to reach around 60–70GW by 2020.

According to most-recent reports, the Chinese government will soon launch a 10-year initiative, incorporating the revised solar and wind power targets and providing for 'billions' to be invested in the wind and solar power sector over the next decade.

At the same time, since last year a number of significant regulations have already been released addressing major obstacles currently faced by the industry.

Benchmark system for feed-in tariffs for onshore wind power

One of the major objects of criticism by investors in the wind energy sector has been the central concession project programme introduced in 2003 for large-scale wind energy projects. This concession model is a competitive tender system under which renewable energy developers must submit proposals for wind energy projects of 100MW and above. The government selects potential investors through a competitive bidding process, taking the price of power and domestic content as the key criteria, and the purchase of all electricity generated by the project is then guaranteed through long-term power purchase agreements. The applicable feed-in tariffs are determined depending on two periods during the project's lifetime (typically 25 years): during the first period, the feed-in tariff is the price proposed by the winning bidder up to an electricity generation level of 30,000 accumulative equivalent full-load

hours; thereafter, the feed-in tariff is set as the average electricity price of the local grid at that time.

The concession system has proved successful in encouraging the construction of wind farms. However, although the Chinese government had originally intended to select the most suitable wind farm developers, in practice the main selection criterion became the lowest on-grid price offered. Some bidders offered prices below generation costs, resulting in a decrease in the quality of the equipment installed. The system also meant that some wind farms were not operating profitably, preventing investment in research and development. In particular foreign investors were often discouraged, given the reluctance to attempt to compete with the prices offered by some domestic bidders.

In response to the growing dissatisfaction with the bidding procedure, on 20 July 2009 the NDRC introduced a benchmark system for feed-in tariffs for wind power applicable to all onshore concession wind farm projects approved after 1 August 2009. The new regulation divides China into four different types of wind power resource areas, based on their wind resources, and stipulates different benchmark prices for each of these areas and ranging from 0.51RMB/kWh for wind power in regions with the most wind resources, such as Inner Mongolia, to 0.61RMB/kWh for regions with the fewest wind resources (US cent 7.5–8.9/kWh).

With the removal of the tariff variable in the selection of wind farm developers, it is hoped that the bidding process will focus on the quality of installations. Moreover, since the benchmark rates generally lie above the average offers of successful bidders in past public tenders, it is expected that the new system will provide increased certainty of future revenues for wind farm developers. As a result, it may well be that investments into onshore wind projects will become more attractive for foreign investors, who in the past had often been discouraged by the lack of certainty regarding future revenues provided under the concession model.

Removal of '70 per cent homemade' rule for wind farm equipment

Another object of criticism by foreign market players has long been an NDRC policy which required 70 per cent of the equipment for any wind farm project to be produced

in China. This policy was introduced in 2005 in an effort to support the domestic industry. In fact, in the past, China's wind power equipment manufacturing industry was predominantly owned and operated by foreign companies. After several years of development and with the support of the preferential NDRC policy, however, Chinese competitors have increased their market share to over 50 per cent.

In a notice dated 25 December 2009, the NDRC announced that the '70 per cent homemade' rule will be removed with immediate effect. According to NDRC officials, the abolition of this policy is made to promote the orderly development of China's wind power industry.

In fact, despite the rapid growth of China's wind turbine manufacturing sector, domestic production is still often limited by a lack of critical technology. While many companies have rushed to produce the carbon fibre blades used in wind turbines, as yet no domestic companies are producing their own electronic control systems and are forced to rely on imports for these critical components. Many small manufacturers rely on technology permits purchased from foreign companies to support their production and most of the products they provide are low-end turbines below 1.5MW. Against this background, the removal of the '70 per cent homemade' rule will clearly intensify competition among overseas and domestic suppliers, which may result in a market restructuring and consolidation of the domestic industry in the near future.

Revision of the Renewable Energy Law

Only one day after the removal of the '70 per cent homemade' rule was announced, on 26 December 2009, the Standing Committee of the National People's Congress (NPC) – China's legislative body – passed an amendment bill revising China's Renewable Energy Law. The revised law will come into effect in April 2010.

China's Renewable Energy Law was first introduced in January 2006. It takes the form of an umbrella document providing the overarching framework of renewable energy policies which have subsequently been implemented by way of a large number of ministerial-level regulations and provincial implementing rules.

The existing law has done much to encourage the growth of renewable energy in China. However, one of

the key issues which particularly impedes wind power generation is the inadequacy of China's power grid. Today, approximately 25 per cent of the country's wind power turbines do not generate any electricity because the equipment is not yet connected to the grid. Secondly, where many wind farms are concentrated in one area, and a large portion of the power may therefore come from intermittent sources, the ability of grid companies to utilise wind power is constrained by their technical ability to keep the system stable. Further, the lack of a fully developed power grid causes difficulties in connecting China's wind farms, which are mostly located in Inner Mongolia, Gansu and Xinjiang, with the cities and towns consuming the most energy thousands of kilometres away on the east coast.

In response to these constraints, the revision of the Renewable Energy Law is mainly aimed at promoting the development of power grids – an objective which is now also stressed in the NPC's work report on this year's annual session where the development of a 'smart power grid' is highlighted as one of the government's efforts in the energy sector. Apart from a new general obligation imposed on grid companies to strengthen the construction of power grids and to use smart power grid technology to increase the ability to utilise renewable energy, foremost among the amendments is the creation of a renewable energy quota. In the future, the energy department of the State Council will determine a minimum quota for the national renewable energy output (as a ratio of the country's overall electricity output) and formulate and supervise implementing measures to ensure that all electricity generated from renewable energy projects is purchased by the grid companies.

Already under the existing law, grid companies are obliged to purchase all renewable energy generated within their domain. Although, on the one hand, the revised law now makes it specifically clear that such obligation extends to the *full* amount of renewable energy generated, notably, such obligation has, on the other hand, been limited to renewable energy generated 'in compliance with grid connection standards' – an acknowledgment of the often-deficient grid technology.

The new law further provides for the establishment of a new renewable energy development fund. Under the Renewable Energy Law 2006, a development fund had been established and financed by the state, under

which grants and loans are extended to renewable energy producers. Under the revised law, in addition to the funds allocated by the state, a renewable energy surcharge will be levied on the electricity sold throughout the country to help finance the development fund. Unfortunately, the law does not make it clear whether such an energy surcharge will be imposed in addition to the renewable energy surcharge already payable by end users today. The revised law also goes beyond the existing law in that the development fund will be used to subsidise power grid companies directly in the construction of power grids for renewable energy projects or the purchase of renewable energy – a clear statement to promote the development of the deficient power grids.

Further amendments provide more detailed guidelines for the national, provincial and local development and utilisation plans which can be seen as an effort to strengthen the oversight over the Renewable Energy Law. It can be hoped that these amendments will increase the reliability of the Renewable Energy Law and hence provide investors with further clarity on the framework of China's renewable energy sector.

Interim measures for offshore wind power

On 22 January 2010, the National Energy Administration (NEA) and the State Oceanic Administration jointly issued the Interim Measures on the Development and Construction of Offshore Wind Power Projects (Interim Measures). The new rules fill in a blank as previous legislation did not address offshore wind projects. The rules are widely perceived as an impetus for China's offshore wind power industry, which in March last year saw its 'kick-off' with the start of construction of China's first offshore wind power project in Shanghai.

The Interim Measures set out approval procedures and criteria that apply to the development and construction of offshore wind power projects. In particular, the rules provide that tender procedures shall be the 'preferred' method for the selection of developers of offshore wind power projects. Unfortunately, the Interim Measures do not provide for guidance on the applicable feed-in tariffs. Given such lack of certainty, foreign investors may still be reluctant to invest in offshore projects. Moreover, as an exception in the renewable energy sector, the Interim Measures expressly provide for a foreign ownership

restriction. According to the Interim Measures, a foreign investor can hold only a minority stake in offshore wind power developers.

Nevertheless, as Chinese firms still need to develop their own advanced offshore wind manufacturing and engineering capabilities, the use of foreign technology is considered to be vital for the realisation of China's vast offshore wind potential.

Establishment of National Energy Commission

Concurrently with the Interim Measures, the State Council announced the establishment of a National Energy Commission (NEC). The new 'super ministry' is headed by Premier Wen Jia Bao himself and will include several of the country's ministers.

In the past, a Ministry of Energy had been established in 1988 but it was disbanded five years later because its administrative functions overlapped with other departments. Facing increasing energy shortages, the government set up an Energy Bureau under the NDRC in 2003, which was followed by the establishment of the NEA in 2008. However, the NEA still lacks the power to carry out many of its assigned tasks as responsibility for the energy sector has been spread among a number of departments.

While to date the NEC's exact powers remain unclear, its establishment is evidence of the government's efforts to centralise and co-ordinate decision making. It also indicates, not surprisingly, that China's government has raised energy issues to an unprecedented level to become a top priority in China's future strategies.

Opportunities for foreign investors

Foreign investments in China's renewable energy sector are mostly qualified as so-called 'encouraged projects' under the foreign investment guidance catalogue, China's centrepiece of foreign investment policy covering all industry sectors, which specifically classifies investment projects into encouraged, permitted, restricted and prohibited categories. Whereas foreign investments in power grids are restricted (a foreign investor can hold only a minority stake in a Chinese-foreign joint venture constructing or operating power grids), in particular the 'operation of power stations using new sources of

energy' (including solar and wind power) belongs to the 'encouraged' category. As an exception, restrictions were only recently introduced for offshore wind power projects under the new Interim Measures discussed above. Foreign investments into wind or solar farm projects as well as in the supply and manufacturing industry are therefore possible and can principally benefit from the same investment incentives that are available for domestic companies in this space.

With China's plans to boost the country's renewable energy sector, it is generally expected that foreign market players will be able to benefit from the ongoing growth and the enormous investment that is anticipated in this sector over the next few years. At the same time, the various policies and regulations released since last year make it clear that China's lawmakers are seriously working on the regulatory framework of the renewable energy sector. Given that the uncertainties of the legal system remain a prevailing challenge for foreign investors in China, the steady improvement of the regulatory framework for the sector should further strengthen the attractiveness of China's renewable industry for foreign investors.

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