Solar Power in Turkey

Ozan Karaduman, managing associate at Istanbul-based law firm Gun + Partners, examines Turkey's burgeoning solar power industry - a small market with untapped natural potential

Solar power has been one of the hot topics in the Turkish energy market in recent years. Considering the immense potential of solar energy, especially in the southern part of Turkey (approximately 1,330 kW/m2per year), the attention to solar power has come as no surprise. Both local and foreign investors are making plans to take part in the nascent Turkish solar market.

Although the potential of solar power in Turkey has been recognized for many years, it was not until June 2013 that the regulatory authority in Turkey ("EMRA") began to request license applications for solar power plants. An enormous number of applications with a total capacity of 8,900 MWs were made to EMRA to get a share of the total capacity of only 600 MWs made available by the EMRA. A number of tenders were held to determine which companies would obtain licenses for the connection points where more than one application was made. In order to win the license a company had to outbid all the other bidders by committing the highest contribution payment to the National Grid Company. The tenders were extraordinarily competitive which led to winning bids of amounts which cannot realistically be collected even in the 10 years feed-in tariff period. This shows how ambitious some of the companies are in order to take part in the first commissioning of licensed solar power in Turkey despite concerns that companies would actually be maintaining their operations within such an unprofitable structure.

It's not only licensed solar power that investors are interested in; unlicensed solar power has attracted considerable attention after the upper limit for unlicensed power has been increased from 500 kW to 1 MW. Investors are looking into ways to use this opportunity to create investment plans based on unlicensed power by establishing multiple unlicensed power plants. Domestic and industrial premises have begun to install solar panels on rooftops and with the developments in the battery technology, this form of rooftop solar power facility may also become a reality to feed the Grid.

This article will analyse the legal framework regulating the licensed and unlicensed renewable energy market in Turkey.

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Market Legislation

There are two laws regulating the electricity production using renewable energy resources: the Electricity Market Law (EML) and the Renewable Energy Law (REL). The EML is the core legislation in the electricity market which regulates all licensed activities. The REL is specific to renewable energy and mainly regulates certain incentives granted for the production of electricity by renewable energy resources, including solar power. Various regulations and communiqués detail the provisions of the main legislation.

Licensing

As in all regulated activities in the electricity market, a production license must be obtained from the EMRA in order to establish and operate a solar power plant in Turkey.

Only limited liability companies and joint-stock companies established in Turkey can obtain electricity production licences.

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There are no restrictions on foreign ownership.

The EML introduced a new licensing system by incorporating a pre-licensing procedure before the actual licensing process. Pre-licensing is the first part of a two tier licensing system established to facilitate all administrative and bureaucratic requirements. The previous electricity market law required the issuance of the generation license by the EMRA, in order to make certain other applications, ultimately delaying the process for generator companies to become operative, however, the pre-license procedure aims to solve this problem. When a company applies for a license, it will first be granted a pre-license with a maximum period of 24 months. The applicant company will then have the right to make applications for various administrative permits, licenses and related documents as well as to acquire property rights and usage rights on the land plot where the facility will be built.

License application procedures for wind and solar power plants differ from the licensing procedure of other power plants. That is, investors cannot apply for wind or solar licenses at any time they want but they need to wait for the pre-determined application dates. There is a simple reason for this, the transmission system of Turkey needs to have available capacity to connect wind and solar power plants to the national grid. If numerous wind and solar power plants are connected to the transmission system at the same time and without organization, this may create problems in terms of balancing of the system because these types of power plants depend on inconsistent power sources to produce energy and are not always possible to predict production capacity. Moreover, there are limited places with sufficient wind or solar power to produce electricity in a cost effective way and there are often more than one application for these locations.

The "first-come, first-served" principle would not be the best option for granting solar or wind licenses as it would be prone to license-trading. Therefore, the EML adopted a system where the EMRA collects license applications within a given time and this is why the Turkish Electricity Transmission Company examines its grid system annually and allocates available capacity for different connection points for wind and solar power plants.

According to the License Regulation, vacant capacity for solar and wind energy facilities will be collated by the Turkish Electricity Transmission Company until April 1st each year and based on those vacant capacity figures, investors will be able to make pre-license applications for wind power plants within the first five days and for solar power plants within the last five days of October every year.

Incentives for Renewable Energy Resources

The government considers the foreign exchange costs for the import of natural gas and oil as is one of the major reasons for the increase in Turkey's current account deficit and therefore wishes to decrease energy imports by incentivizing the use of renewable energy resources for the production of electricity. There are a number of important steps taken to incentivize renewable energy:

• Feed-in-Tariff Mechanism

Various legislative efforts have been made to encourage investors to make investments in power plants using renewable energy resources. The most important one of all these efforts has been the Feed in Tariff ("FIT") mechanism which was introduced to Turkey by the REL. A new incentive was also introduced for using local components in the renewable energy power plants, with an additional increase in the FIT price if certain listed components used in the power plant have been locally produced.

The FIT prices are determined as ¢13.3 per kWh for solar power plants, ¢7.3 per kWh for hydroelectric and wind power plants, and ¢10.5 per kWh for geothermal power plants. If a renewable energy power plant uses applicable REL listed local components, the feed-in tariff applied to that power plant will be increased by between ¢0.4/kWh to ¢3.5/kWh based on the component type.

• Discount in the License Fees

Another important incentive for renewable energy power plants is a discount in the license fee. Renewable energy licensees are required to pay only 10% of the ordinary pre-license and license fees.

• Unlicensed Electricity Production

One of the most welcome amendments brought about by the EML relates to unlicensed power generation. Under the previous law, power plants using renewable energy resources with a maximum capacity of 500 kWh could generate electricity without obtaining a license. The maximum limit was constantly criticized for being extremely low. The EML responded to the feedback from the market and increased the maximum capacity to 1 MW which created a considerable increase of interest in solar energy equipment supply companies. Investors also began to use this as an model creating multiple power facilities each with a capacity of 1 MW.

Final Comment

There is no doubt that Turkey has great potential in renewable energy and in particular, solar power, but this has yet to be turned into actual electricity production. The national grid system has to be improved to allow for more renewable power plants to be commissioned. The country's natural potential awaits for being turned into usable electricity production, and investors have shown enthusiasm to realize this task. The government however, needs to use this synergy to make the most of such considerable potential.

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