

Turkey Boosts Large-Scale Solar Investments

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The tender for the Karapınar Resource Area, a solar-power energy zone with an allocated capacity of 1 GW, will take place on February 21, 2017. This tender is the first under the new legislation designed to promote large-scale renewable energy investments in Turkey. The project will be developed by one investor with the requirement to set up a manufacturing facility and conduct research and development activities.

New legislation¹, namely the Regulation on Resource Areas for Renewable Energy passed on October 9, 2016, sets out the legal framework to streamline the process of allocation of land for large-scale renewable energy projects. The legislation structures the establishment of “renewable energy resource areas” (*yenilenebilir enerji kaynak alanları* or *YEKA*) to be made available to bidders via tender process. This legislation supports the 3 GW target capacity for licensed solar power projects announced by the Ministry of Energy and Natural Resources.

Although the Regulation covers all renewable energy resources, the first and only tender to be launched to date under this Regulation is for solar power. It remains to be seen if and how other renewable energy types (e.g. wind) will be developed on Resource Areas.

What does the Renewable Energy Resource Areas Regulation bring?

- The Regulation allows development of Resource Areas on privately owned, public and treasury-owned lands.
- Resource Areas will be determined and developed following either (i) the necessary studies undertaken by the General Directorate of Renewable Energy of the Ministry, or

(ii) following a tender to be held for the allocation of connection capacity.

- (i) For Resource Areas to be determined by the General Directorate: after a series of technical, administrative, and economic reviews and studies the General Directorate will first announce “nominee” Resource Area sites. If a nominee site is subsequently deemed feasible by the General Directorate, then it will be announced in the Official Gazette as a Resource Area within one year of approval.

Following the determination of the Resource Area by the General Directorate, usage rights will be allocated by way of a tender held by the Ministry through an underbidding procedure, as explained below.

- (ii) Considering that the process explained under (i) may be time consuming, the Regulation provides for an alternative process in which investors are to take a more active role. Under this process, the Ministry identifies and announces “investible” regions and the capacity to be allocated to those regions and invites interested investors to propose projects and identify specific sites to be developed as Resource Areas.

Project/site selection will follow an underbidding tender process organized by the Ministry of Energy. Separate tenders will be launched for different renewable energy resources. The winning bidder will conclude a Resource Area Usage Rights Agreement (*YEKA Kullanım Hakkı Sözleşmesi*) with the Ministry and proceed to develop the project site as a Resource Area.

- Interested investors must fulfill the criteria under the tender announcements and also be compliant with the Electricity Market Law and the secondary legislation promulgated thereunder to be eligible.
- Companies incorporated in Turkey in the form of limited or joint stock companies may bid in the tenders individually or under a joint venture structure with other eligible companies.
- Interested foreign investors should note that tender specifications may stipulate a required minimum shareholding by Turkish nationals and the technology provider in the bidding entity. “Technology provider” is defined in the Regulation as a legal entity capable of developing the technology required to manufacture the components set out in the tender specifications. The tenders will also stipulate a requirement for domestic manufacturing.

- The tender, which will be a sealed-bid auction, may be canceled by the Ministry at any phase.

The tender will be organized through an underbidding procedure where the applicant offering the lowest rate over the Ministry's announced feed-in rate wins the tender. The Regulation states that the Ministry will announce feed-in rate ceilings for each Resource Area which do not exceed the total price that could possibly be given to the generators under the applicable legislation. Those prices are currently as follows in the table below.²

- The winning bidder must submit a preliminary license application to EMRA within 45 days of either execution of the usage right agreement or approval of the Resource Area by the General Directorate.
- The Resource Areas may only be allocated to such investors who commit to use (i) domestically manufactured products, and/or (ii) set up manufacturing facilities to manufacture parts for use in the power plant. The legislation requires that component manufacturing, rather than mere assembly, be undertaken in Turkey.
- Where development of a manufacturing facility for production of parts is

involved, the facility must be operational during the preliminary license period. The investor must provide proof attesting to the operation of the facility to the Ministry.

- Investors developing manufacturing facilities must also undertake various research and development (R&D) activities outlined in the scope of the applicable legislation. Submission of an annual R&D plan pursuant to the tender specifications is also required. R&D activities will be managed from an R&D center.

Failure to fulfill the obligation to use domestically manufactured products and subsequent failure to remedy such a breach within the cure period provided by the Ministry will result in termination of the usage right agreement. Termination of the agreement will result in the cashing of investor's bid bond and cancellation of the generation license.

- Generation licenses for Resource Areas will be issued for a maximum period of 30 years. Generation licenses are normally issued for a maximum period of 49 years.
- The agreement will also, among other things, indicate the price at which the electricity will be sold to the system.

The Road Ahead

We expect large-scale solar power investments be undertaken in Resource Areas. Of Turkey's capacity target for licensed solar power plants of 3 GW, only 600 MW has been allocated in 2015 by way of tenders. The remaining capacity will likely be allocated through Resource Area allocations.

The First Tender

The tender announcement for Karapınar Resource Area (announced as a Resource Area in 2015) was published by the Ministry on October 20, 2016. Some of the important features of this Resource Area are:

- Allocation of assigned 1 GW capacity allocated to one developer.
- The developer is required to develop a manufacturing facility and conduct R&D activities. The manufacturing facility must have the capacity to produce 500 MWp of photovoltaic modules per year. The tender specifications also include further technical details as to the required manufacturing facility, components and R&D activities.
- Completion of the manufacturing facility must be within 18 months of the execution of the Agreement. The power plant must be completed within 36 months of completion of the manufacturing facility.
- In order to qualify, applicants must have previously operated a facility which manufactured photovoltaic modules of 3,000 MWp between January 1, 2014 and July 30, 2016.
- Provided that at least 25% of the shareholding in the applicant entity is by Turkish nationals and the technology provider (separately), the applicant entity (or joint venture) may have foreign shareholders.
- If the bid is submitted by a joint venture, a company must be established prior to the execution of the agreement. Consortia, where each partner's

Power Source of Generating Facility	Feed-in Tariff (US\$/MWh)	Maximum Domestic Component Incentive (US\$/MWh)	Maximum Total Price (US\$/MWh)
Hydraulic	73	23	96
Wind	73	37	110
Solar (photovoltaic)	133	67	200
Solar (concentrated)	133	92	225
Biomass	133	56	189
Geothermal	105	27	132

responsibility is limited to the part of the work it assumes, may not apply for the tender.

- Applicants must submit a US\$50 million indefinite and irrevocable bank letter of guarantee (bid bond).
- The ceiling feed-in rate for the under-bidding tender is US\$80/MWh.

- The facility will sell electricity over the agreed feed-in rate for a period of 15 years from the date of the agreement. The agreement will likely include provisions applicable to the sale of electricity after the expiry of the 15-year period (e.g., through bilateral power sale agreements).

The application deadline is February 14, 2017 for the February 21, 2017 tender.

Review and analysis of the tender announcement and statements made by Ministry officials indicate that the tender will include stringent financial and technical criteria, such as a requirement of 75% domestic manufacturing. The criteria, when combined with the strict tender and realization timelines, set a high benchmark for subsequent tenders and project proposals. Whether setting such high benchmarks is a successful strategy for development of target renewable energy capacities remains to be seen.

- 1 This Regulation is not the first piece of legislation relating to large scale renewable investments. In 2013, the Ministry enacted a regulation designed to promote the development of large-scale renewable energy facilities on lands allocated by the state. Although the 2013 legislation covered all renewable energy resources, the first and only Resource Area allocation made under it was for solar power investment: the Karapınar Energy Industry Zone in Konya province was announced to be a Resource Area in September 2015.
- 2 In addition to feed-in rates, the renewable energy legislation provides for incremental price incentives for generators using certain domestically manufactured mechanical and electromechanical components in their facilities. The above table assumes that the relevant facility uses all locally manufactured equipment listed in the legislation, and therefore is granted the maximum incentive available.

The Regulation imposes on the investors the obligation to use domestically manufactured components. Therefore, for an investment on a Resource Area, the use of domestic components is not an option, but an obligation. The Regulation also makes it clear that no separate domestic component incentive will be provided, although it is factored in the calculation of the feed-in rate ceiling.