Opportunities to Strengthen the YEKA Auction Model for Enhancing the Regulatory Framework of Turkey’s Power System Transformation

Turkey is confronted with the difficult task of achieving a transformation of its power sector into a more secure, affordable and sustainable one. As electricity demand has grown annually by 4.8%, on average, in recent years, investing into local renewable energy sources offers strong potential to promote a sustainable transformation of Turkey’s power system, as well as reducing the current account deficit related to energy imports, which comprise about 75% of overall supply.

In this context there is a clear vision to increase its share of renewables in the power system. A target thereby is to supply at least 30% of its total electricity from renewables in the year 2023. By 2026 even half of Turkey's electricity output could be supplied by renewable energy. This ambitious plan requires a total installed capacity of 60 GW wind and solar energy, constituting an addition of about 48 GW in the next 7 years.

SHURA is preparing a series of papers to provide the pathway to reach this capacity target. The first report of the series, titled “Balancing the Location of Wind and Solar PV Investments”, was released in October 2018. In a recently published second paper, SHURA has collaborated with Factor to elaborate on the future regulatory framework for this transition. The new paper is titled:

"On the way to efficiently supplying more than half of Turkey’s electricity from renewables: Opportunities to strengthen the YEKA auction model for enhancing the regulatory framework of Turkey’s power system transformation.”

Hugo Lucas (formerly the Head of Energy at Factor), as well as Ayşe Ceren Sarı and Değer Saygın (SHURA) have developed 9 priority areas to improve the Renewable Energy Resource Areas Auctions (Yenilenebilir Enerji Kaynak Alanı, YEKA). The YEKA Auctions are a market-based policy mechanism and primary instrument employed by the Turkish government to advance Turkey’s energy transition. Among other things, the suggestions provided in this report evaluate location and capacity size determinants, aim to strengthen transparency and accessibility, highlight the importance of maintaining actor diversity for sustainable market development, and critically stress the importance of unlocking international finance.

It is the objective of this paper to ensure that the Turkish government’s rapidly evolving policy-making process can realise the most cost-effective auction design and regulatory framework that will create a long-term sustainable renewable energy industry capable of meeting the demands of Turkey’s growing energy market, as well as the markets beyond Turkey’s borders.
