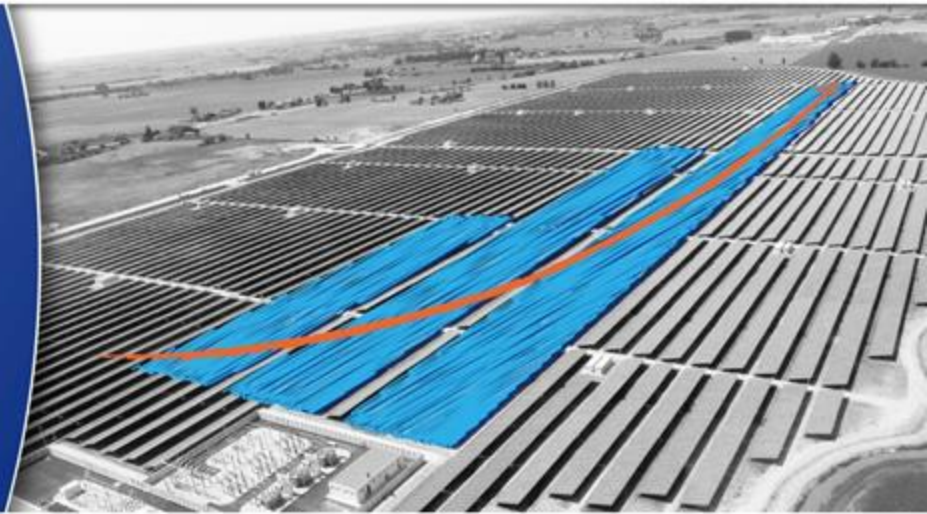


SOLAR PV FROM OUTSIDE  
THE EU: TURKEY'S  
POTENTIAL  
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Date, name



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# PV Financing

Interest to solar energy has always been high among the investors in Turkey. There is a good potential for solar energy and the country has a high level of solar irradiation.

# Legal Framework

- In Turkey, currently there is only unlicensed electricity production over photovoltaic systems.
- A consumption point has to be indicated in order to install a system. The PV system and the consumption point have to be located in the distribution company's area of authorization.
- Currently the existing business model is net-metering.

- Energy market (including petroleum, natural gas and electricity) is a highly regulated market. Energy Market Regulation Agency(EPDK) is responsible for the market regulation. The agency also declares the system application fee and grid usage fee in its website(annually)



# Net Metering

- At the end of the each billing period net consumption/production is calculated and in the case of excess electricity is produced 13.3 USD cents per kWh is paid. The Feed-in Tariff is available for 10 years. (Note: it is calculated over the billing day's CB Exchange rate and paid in TL)
- PPA is not allowed in Turkey.

- The highest level of system capacity is 1 MWp according to unlicensed electricity generation regulation.
- Another limitation is for the consumption requirement: If an investor wants to install a system of 1 MWp, he/she is supposed to indicate a consumption point (house, factory, Office) which requires a 33 kWp (consumption: X kWp, system size: 30 X kWp)
- It is not an obligation to establish a company for PV system installations for unlicensed systems.

- System applications are submitted to local distribution system operators.
- Main problems stem from the bureaucracy. (construction permit & letter of conformity)
- In Turkey, there is no application segment for PV systems defined in the legislation. Each applicant have to follow the same bureaucratic steps. This creates a barrier for small size roof top PV installations.
- The feed-in tariff price is 13.3 USD cents for all system sizes during 10 years.

# System Application Procedures.



- One of the main problems is that, there is no standardization for system applications within the country. The processes may differ depending on the municipality and/or governorate. For construction permit and letter of conformity, the investors may be forced obtain many approvals (whether relevant or not)



# Main Problems for Solar Industry

- The infrastructure is not sufficient for the PV systems. This fact restricts total capacity installed within the country. The capacity of transformers and distribution system is about to reach its limit in most of the country. Total system size has reached 600 MWp
- Grid retail prices are low in Turkey (7-10 USD cents per kWh, differ slightly for industrial, commercial or residential systems). So this deters the investors for self-consumption

# Main Problems for Solar Industry

- Total installed capacity has just reached 600 MW and the systems are large scale. Residential, roof top systems are very rare.
- Financial institutions (banks, project financing, insurance companies) do not have the data to assess the systems in technical and financial ways. The fact that PV systems are a new issue in Turkey and there is no PV system older than 10 years. So, they have a conservative manner for financing the projects.

- The regulation regarding renewable energy cooperatives is still in development and cooperative applications are regarded as unlicensed production. The total capacity that is assigned to the cooperatives related to the number of members. There are cooperatives established legally. However, they haven't installed any PV systems yet.

THANK YOU FOR YOUR ATTENTION

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