

Track 2 - The smart energy system transition in cities and regions

Title of the proposed paper

Renewable Energy in Palestine, Trends, Technologies and Perspectives

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Text abstract (max. 300 words)

Energy is one of the major problems facing the Palestinians, since all the needs are imported from neighboring countries. Despite the fact that Palestine has already an electricity generation plants and planning to build more, still the fuel has to be imported.

The main problems of being dependent on energy import in Palestine are concerned with two major obstacles, high prices and availability. Palestine is considered as part of the Arab league, however the energy price standard and tariff are made to comply the Israeli standard which is much more expensive than the energy in Arabic countries. Moreover, the conflict in Palestine has affected the availability of energy; during the peaks of this conflict there were always energy crises in the Palestinian Authority.

To solve such problems, the Palestinians started and since long time ago to look for energy alternatives, one of the long lasted technologies was the Solar Water Heater (SWH) which is widely used in the country, a survey conducted by Palestinian Central Bureau for Statistics (PCBS) has shown that 67.2% of households are equipped with SWH and a limited percentage in other sectors . Moreover and recently large and small scale renewable energy projects has implemented and planned. The energy transition actions has been noticed in the last five years as a result of the global climate change awareness campaigns, the increasing needs and prices of energy, the drop in renewable energy cost prices and the successful stories of the implemented projects.

This paper consists of three parts, in each part we will answer the related research question, in the first part we will try to shed light on the current situation of the electricity sector in the Palestinian Territories: How are the supply and demand, transmission and the regulatory framework for Palestine looks like? In the second part we will provide answers why the energy transitions are required? We will provide in this paper real cases in which the transition solved the electricity problems. We will show the major achievements of the Palestinians in moving to the renewable energy sectors at different levels. However the transition from the traditional to renewables in Palestine collapses with many obstacles and difficulties, in the last part of this paper we will explore how the risks and the challenges affected the implementation of such projects and we will give example of the AWEP project in Hebron city in Palestine? This is mainly as a result of two main factors, the occupation and local awarness in Palestine.