

What is the future of solar energy in Palestine?

Solar energy can be a major contributor to the future Palestinian energy supply, with its high potential in the area. Palestine receives about 3,000 hours of sunshine per year and has an average solar radiation of 5.4 kWh/m. Domestic solar water heating (SWH) is widely used in Palestine where almost 70% of houses and apartments have such systems.

Is solar energy a reliable source of energy in Palestine?

In Palestine, solar energy is a reliable source of energy due to its high average radiation and sunshine rate per day (Daoud, 2018). Yet, the yearly progress of the solar energy is around 1% only as indicated by the Palestinian Energy Authority (PEA) plan (PEA, 2013). Fig. 1. PV panel project at Palestine Technical University - Kadoorie.

Why is solar power important in Palestine?

The solar power can be a key supplier of energy to the forthcoming generations in Palestine, due to the total amount of yearly sunshine's hours (3000 h) and annual solar radiation (5.4 kWh/m). Furthermore, solar water heating (SWH) is widely used in where about two third of residents own such systems.

Can Palestinians achieve 10 percent of electricity production from renewable sources?

The Palestinian Energy Authority issued a renewable energy strategy in 2012 that aims to gradually achieve 10 percent of electricity production from renewable sources by the end of 2020. According to the strategy, this goal can be achieved if certain prerequisites are attained.

How much PV power can be produced in Palestine?

In Palestine, the average values of specific PV power production from a reference system, described in Table 2, vary between 1700 and 1765 kWh/kWp for the selected three areas. A maximum value of energy that can be produced in Gaza and in the very southern region of the West Bank is higher than 1800 kWh/kWp.

What is the potential of biomass energy in Palestine?

Being an agrarian economy, Palestine has a strong potential for biomass energy. There is good potential for biogas generation from animal manure, poultry litter and crop wastes. In addition, organic fraction of municipal solid wastes is also represents a good biomass resource in Palestine.

Palestine receives about 3,000 hours of sunshine every year, making up an average of 8.2 hours daily, which makes it suitable for investing in solar energy. In this research land-use/land-cover data and a Digital Elevation Model (DEM) are used in a GIS environment while employing land-use/land-cover criteria and topography to produce a site ...

Palestine has a high solar energy potential, receiving about 3,000 sunshine hours per year with a solar

radiation of 8.27kwh/m²/day in the middle area, 7.51 in the southern area, 6.86 in the western area, and 6.15 in the eastern area.

Accordingly, the Palestinian Energy Authority has prepared a strategy for renewable energy as an important part of the resources matrix, where Palestine needs clean and more secure supply of electrical power. The Palestinian Energy Authority has developed a ...

Palestine can reduce reliance on imported energy carriers by deployment of clean energy systems, especially solar, geothermal and biomass. Palestinian areas has large alternative energy potential which can be harnessed by a futuristic energy policy, large-scale investments and strategic assistance from neighbouring countries like Jordan and Egypt.

Eighty percent of the 2030 targets will be achieved with solar PV, 10 percent with wind energy, and 10 percent with biogas/biomass. Legal and regulatory environment. The most recent relevant law in Palestine is the Decree Law on ...

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There are many sources of renewable energy that can be approached in Palestine including: Solar with its different used either as photovoltaic cell, thermal solar plates or concentrated solar plates, wind power, geothermal energy, and biomass.

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By putting in place clean energy infrastructure, such as solar, wind, hydropower, and biomass systems, Palestine can lessen its reliance on imported energy sources. The Palestinian territories have significant alternative energy potential that can be realized through a forward-thinking energy policy, sizable investments, and tactical support ...

The potential of solar energy in Palestine using Photovoltaic (PV) and concentrating (CS) solar systems have been discussed. The present study can be considered as a road-map to get out of the electricity crisis in the Gaza Strip and to end the suffering of Gazians.

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