Enphase energy palestine

Enphase energy palestine

The Palestinian Energy and Natural Resources Authority (PENRA) aims to improve energy security by diversifying its sources of electricity and reducing the country"s dependence on imported power supply; increasing the use of renewable sources of energy that are available to increase the share of clean power in the overall energy mix of the country; and attracting private-sector participation (PSP) in the renewable energy sector. The Palestinian territory has a high potential for solar power generation, as it receives around 3,000 hours of sunshine per year. As a result, the Palestinian Authority is looking to attract investments in the renewable energy sector.

The energy problem in Palestine is one of many issues that affect the social and economic conditions of the Palestinian people. The fact that most of the energy is imported at relatively high prices places more financial burdens on poor and marginalized people. On average, households spend nearly 34 percent of their income on food and around 8.5 percent on energy (electricity and liquid gas). This reflects the vulnerability of Palestinians, especially the poor and marginal segments, and limits their ability to obtain the energy they need for daily use.

Electricity supply and demand

According to the Palestinian Central Bureau of Statistics (PCBS), the total electrical energy consumption in Palestine in 2019 was reported to be 5,929.5 GWh. This quantity is almost entirely imported from outside sources, mainly from the Israel Electric Corporation (IEC), as shown in Table 1.

The West Bank is mainly supplied by three 161/33 kV substations: one in the south close to Hebron; another one in the central West Bank, near the town of Salfeet, close to Nablus; and a third in the northern part of Jerusalem.

The electricity supplied by different sources is managed by local Palestinian companies, municipalities, committees, cooperatives, and associations. The largest of these are the Jerusalem District Electricity Company (JDECO), the Hebron Electric Power Company (HEPCO) that serves the southern areas around Hebron, the newly formed Southern Electric Company (SELCO) that serves the rest of the southern area, the Northern Electricity Distribution Company (NEDCO) that is being established to serve the northern area, the Tubas Electricity company (TDECO), and the Gaza Electric Company (GEDCO).

The available power capacity does not meet the demand in all Palestinian areas. Lack of electricity and the high cost of imported electric power are the main factors in the low Palestinian consumption of electric power. According to PCBS, the monthly average household electricity consumption (based on consumption during January 2020) varies from 285 kWh in Gaza to 482 kWh in the central West Bank. Moreover, the domestic sector is responsible for the bulk of electricity consumption, followed by the commercial sector.

Enphase energy palestine

The electricity demand in the Palestinian areas has doubled in the last decade. The peak demand usually occurs during winter when people use electricity for indoor heating. Peak demand is of particular significance, especially when there is a lack of fuel for use in indoor heating instead of electricity. Summer involves another peak demand period, manifested in the need for air conditioning that leads to additional electricity consumption.

While peak demand is expected to grow, it is also projected that demand for electricity will increase in the coming decade due to population growth, urban expansion, and development of commercial and industrial activities.

Potential solar energy production in Palestine

The main Palestinian cities and urbanized areas are interconnected by a relatively dense road network. Good accessibility is a precondition for an efficient energy network based on the exploitation of solar resources. From the point of view of natural geographic conditions, photovoltaic (PV) installations are optimally located on slightly inclined terrain, which is oriented to the south and has few natural pollution sources (e.g., sand, bare land); it is available in both the eastern and western parts of the West Bank and on the eastern side of the Gaza Strip.

Optimal locations for PV systems can be advised in areas that are not too windy or on the hills where winds could have a positive effect on the systems" performance. In locations such as the western part of the West Bank, winds have a cooling effect on PV modules. Locations in the Gaza Strip where the average wind speed is higher, as well as in the eastern West Bank, where wind can bring dust or pollution from urbanized, desert, and agricultural areas, are not preferred areas due to the fact that wind in these regions commonly has a negative effect because it increases dirt on the surface of PV modules, thereby reducing efficiency and increasing operation and maintenance costs.

Contact us for free full report

Web: https://kary.com.pl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346