

# How much does solar energy cost in Bahrain







#### **Overview**

How much does electricity cost in Bahrain?

The price of electricity in Bahrain is 0.048 U.S. Dollar per kWh for households and 0.077 U.S. Dollar for businesses (March 2023), including all components of the electricity bill such as the cost of power, distribution, and taxes.

Are Bahrainis willing to pay the full cost of solar PV systems?

According to the cross tabulation results, majority of participants who were willing to pay the full cost of residential solar PV systems were Bachelor degree holders with the average per-capita monthly income for Bahrainis.

Is solar energy suitable for Bahrain?

Bahrain has the opportunity to use solar energy, as it receives an estimated solar radiation of 6 kWh/m $^2$ /day ( Alnaser et al., 2014 ). The country's global horizontal irradiance is 2160 kWh/m $^2$ /year, while direct normal radiation is 2050 kWh/m $^2$ /year ( IRENA, 2014 ).

How much solar radiation does Bahrain receive?

Bahrain receives approximately 6 kWh/m² /day of solar radiation ( Alnaser et al., 2014 ). The country's global horizontal irradiance is 2160 kWh/m² /year, while direct normal radiation is 2050 kWh/m² /year ( IRENA,, 2014 ). In 2016, the average daily sunshine hours exceeded 10 hours, further emphasizing the potential for solar energy in Bahrain ( IGA,, 2016 ).

How much energy does Bahrain consume in total?

In the period from 2000 to 2016, Bahrain's energy consumption grew significantly, reaching approximately 6300 kTOE in 2016, compared to 3000 kTOE in 2000 ( IEA, 2018a ). Electricity accounts for 37% of the total final energy consumption, with natural gas being the primary fuel for electricity generation.

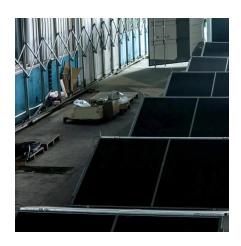


What is the price of natural gas in Bahrain?

The price of natural gas in Bahrain, September 2021: Households pay 0.013 U.S. Dollar per kWh and businesses pay 0.013 U.S. Dollar per kWh. For comparison, the price of natural gas in the world in that month was 0.131 U.S. Dollar per kWh for households and 0.126 U.S. Dollar per kWh for businesses.



### How much does solar energy cost in Bahrain



# <u>Bahrain Electricity Generation Mix 2023 , Low-Carbon Power Data</u>

History Historically, Bahrain's commitment to lowcarbon electricity has lacked momentum, as evidenced by the unchanged figures in solar energy generation from 2016 through 2023, ...

## The performance of four domestic rooftop 7.8 kW - PV in the ...

The first non-domestic 4 kW PV - panel and zero emission building installed in Bahraini building was in 2010 to provide solar electricity [2, 3]. This installation was part of 6.9 ...



#### <u>Evaluating solar and wind electricity production</u> <u>in the Kingdom of</u>

We also found that the average cost of wind electricity unit is 49 fils/kWh (USD $\updownarrow$  13/kWh) and the payback is nearly 40 years while the average cost of solar electricity unit is 17 ...



## The feasibility of using rooftop solar PV fed to the grid for Khalifa

In 2018, the Ministry of Electricity and Water launched Bahrain's first "solar home" project in Jidhaffs, with 24 solar panel installed on the



rooftops, producing about 7.8 kW of ...



#### **Contact Us**

For catalog requests, pricing, or partnerships, please visit: https://legnano.eu