

Total investment cost of solar diesel hybrid storage project in Iran

Can PV/wind/diesel hybrid power system reduce the cost of energy?

The results showed that around 75% could decrease the cost of energy by using PV/wind/diesel hybrid power system.

What is a hybrid energy system?

In a hybrid energy system, different energy sources (photovoltaic (PV), wind, diesel, etc.) as well as energy storage devices are connected together to supply the electrical load.

Can a wind/photovoltaic/battery/diesel hybrid system work in Iran?

In this paper, a wind/photovoltaic/battery/diesel hybrid system with hourly analysis during a year is modeled and optimized for different cities of Iran with various ranges of wind, solar and ambient temperature. A number of solar panels, wind turbines, batteries as well as nominal capacity of diesel engine are considered as design parameters.

Why is diesel engine a good source of energy in Iran?

For more flexibility, diesel engine is also considered as a source of energy conversion and whole system is optimized with hourly analysis during a year for different cities of Iran with various ranges of wind, solar and ambient temperature including Tabriz, Tehran, Zahedan, Mashhad, Kerman and Bushehr.

How much does a hybrid power system cost?

The LCOE (levelized cost of electricity) of generated electricity by this hybrid system (\$0.25/kWh) was about 20% cheaper than that with a diesel engine as backup (\$0.31/kWh), while the capital cost and the total NPC (net present cost) were about 30% and 18% lower, respectively.

How to optimize a hybrid wind solar photovoltaic system?

There are different schemes to optimize a hybrid wind solar photovoltaic system: multi-objective or mono-objective optimization problem; grid-connected or stand-alone system; economics, reliability or environmental indicators; solution methodologies and solving techniques.



Total investment cost of solar diesel hybrid storage project in Iran



Total investment cost of solar diesel hybrid storage project in Iran

Contact us for free full report

Web: <https://www.solarcomplete.co.za/contact-us/>

Email: energystorage2000@gmail.com

WhatsApp: 8613816583346

