

Largest Solar Power Plants in India

Among several solar parks in India, **Bhadla Solar Park** has been the largest solar power plant in India and the world until now. This plant is in Bhadla, Phalodi tehsil, in the Jodhpur district of Rajasthan. It has a solar capacity of 2250 MW and is spread over a large area of 14000 acres. It was commenced in 2015 with an investment of 1.4 billion in Bhadla, Jodhpur district, Rajasthan, the world's largest solar power plant. The temperature in Bhadla ranges from 46 to 48 degrees, and the region receives excellent solar radiation the whole year.

Bhadla Solar Park is also the second biggest solar power plant in India in terms of the area in which it is installed. Ten million solar panels in the plant have a generation capacity of 2245 megawatts. The Bhadla solar power plant project is a part of a 1,00,000-megawatt solar energy grand plan.

About Largest Solar Park in India

Solar power generation in India is at an all-time high. The solar industry has been contributing largely to the country's electricity generation lately. India is proudly home to the largest solar park and also the largest floating solar power plant. Let us look at some of the largest solar parks in India.

Largest Solar Power Plant in India (solar power generation)	Bhadla Solar Park
Second Biggest Solar Plant in India	Bhadla Solar Park (area-wise)
Largest Floating Solar Power Plant in India	Ramagundam Floating Solar PV Project at Ramagundam, Telangana
Solar city of India	Coimbatore
Most Power producing state of India	Rajasthan
World's largest solar power plant	Bhadla Solar Park
Second most solar power producing state of India	Karnataka

List of Largest Solar Power Plant in India 2022

As mentioned above, currently, there are more than 40 solar power plants in India. They are identified and distinguished based on the amount of energy they generate. India is proudly home to the world's largest solar power plant, **Bhadla Solar Park**, in the Jodhpur district of Rajasthan. It generates around 2055 MW of solar power, contributing to the country's electricity generation.

Take a look at the list of India's top 5 largest solar power plants.

S.No	Solar Power Parks in India	Power Generation	Area
1	Bhadla Solar Park, Rajasthan	2250 MW	14000 Acres
2	Pavagada Solar Park, Karnataka	2000 MW	13000 Acres
3	Kurnool Ultra Mega Solar Park, Andhra Pradesh	1000 MW	5932 Acres
4	NP Kunta, Andhra Pradesh	1500 MW	7924 Acres
5	Rewa Ultra Mega Solar, Madhya Pradesh	750 MW	1590 Acres

Bhadla Solar Park

The Bhadla Solar Park is credited with the title of the world's largest solar power plant in terms of solar power generation.

- It is also the second largest in terms of area. It is spread over an area of 14000 acres in Bhadla village, Phalodi tehsil, Jodhpur district, Rajasthan.
- The average temperature range in this area is 46-48 degree Celsius. Due to its extreme climatic conditions, this area has been declared uninhabitable.
- The Bhadla Solar Park is currently under development under various stakeholders and is partially operational.
- The installation capacity of the solar plant is 2245 MW.
- The construction cost was ₹10,000 crore (US\$1.3 billion).

Pavagada Solar Park

The world's third largest solar power plant is Pavagada Solar Park, with an area of 53 square kilometers in Karnataka, India. It is a type of flat-panel Photovoltaic solar plant and the biggest solar plant in India. The full name of this plant is **Shakti Sthala Pavagada Solar Park**, the world's second-largest photovoltaic solar park.

- It is spread over 53 square kilometers in Pavagada taluk, Tumkur district of Karnataka.
- The area has favorable geographical conditions.
- The Pavagada Solar Park was completed in 2019 and operational in 2020.
- Karnataka Solar Power Development Corporation Ltd. (KSPDCL) is the plant's owner, and the total project cost was US\$2.1 billion or ₹14,800 crores.

Kurnool Ultra Mega Solar Park

The Kurnool Ultra Mega Solar Plant is located in Panyam Mandal of Kurnool district, Andhra Pradesh.

- It was also credited with the title of the world's largest solar power park when it was being made.
- This solar power plant of India was established within two years of its authorization in 2017 by the Andhra Pradesh Solar Power Corporation Private Limited (APSPCL).

NP Kunta Ultra Mega Solar Park

The NP Kunta Ultra Mega Solar Park is located in the Nambulapulakunta Mandal in the Ananthapur district of Andhra Pradesh.

- It is also known as the Ananthapuram Ultra Mega Solar Park.
- The solar power plant is spread over an area of 7924 acres and was certified in the year 2016.
- NP Kunta Ultra Mega Solar Park has been divided into two parts Ananthapuram 1 and Ananthapuram 2. The first part is supposed to generate electricity worth 1500 MW, whereas the second part generates around 500 MW of solar power.

Rewa Ultra Mega Solar Park

This ultra mega solar park is Asia's largest single-site solar power plant and one of India's largest solar power plants.

- The Rewa Ultra Mega Solar Power Plant is a photovoltaic solar plant located in Gurh tehsil of Rewa district of Madhya Pradesh.
- The solar power plant was started in 2018 and has received the World Bank Group's President's Award for excellence for its transaction structure.
- It is also the first such solar power plant in India that provides power to the Delhi Metro.
- It is also the first and only solar power plant funded by the Clean Technology Fund (CTF).
- The plant is a joint venture between Madhya Pradesh Urja Vikash Nigam Limited (MPUVNL) and the Solar Energy Corporation of India (SECI).

Charanka Solar Park

The Charanka Solar Park, also known as the Gujarat Solar Park-1, is developing on a 2,000-hectare (4,900-acre) land. The Gujarat Solar Park-1 is located in the Charanka village in Patan district, northern Gujarat.

Kamuthi Solar Power Project

The Kamuthi Solar Power Plant is a photovoltaic power station that is spread over an area of 2,500 acres.

- The solar park is located in Kamuthi, Ramanathapuram district, 90 km from Madurai, in Tamil Nadu, India.

Kadapa Ultra Mega Solar Park

The Kadapa Ultra Mega Solar Park is located in the Mylavaram Mandal of Kadapa district, Andhra Pradesh.

- It is spread over a total area of 5,927.76 acres.
- The project is presently being carried out by the Andhra Pradesh Solar Power Corporation Private Limited (APSPCL), a joint venture of Solar Energy Corporation of India (SECI), Andhra Pradesh Power Generation Corporation, and the New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

Top 10 World's Biggest Solar Power Plant

A list of the top 10 world's largest solar power plants are mentioned here. Learn about the country where these solar power plants are situated, their installation capacities, and more.

Name	Country	Installation Capacity
Bhadla Solar Park	India	2245 MW
Huanghe Hydropower Hainan Solar Park	China	2.2 GW
Pavagada Solar Park or Shakti Sthala Solar Power Project	India	2050 MW
Benban Solar Park	Egypt	1.65GW
Tengger Desert Solar Park	China	1,547 MW
Mohammed bin Rashid Al Maktoum Solar Park	UAE	1,313 MW
Sweihan PV Independent Power Project	UAE	1,177 MW
Kurnool Ultra Mega Solar Park	India	1000 MW
Copper Mountain Solar Facility	United States	802 MW
Mount Signal Solar	United States	794 MW

Other Solar Power Plants in India

India has been a major contributor when it comes to the generation of electricity through solar power. It is proudly home to one of the largest solar power plants in the world. The future is seemingly strong in India's solar power generation. Let us look at India's other important solar power projects contributing to solar power generation.

State	Solar Park	Capacity (MW)
Andhra Pradesh	Ananthapuramu-I Solar Park	1500
	Kadapa Solar Park	1000
	Ananthapuramu-II Solar Park	500
	Hybrid Solar Wind Park	160
Arunachal Pradesh	Lohit Solar Park	20
Gujarat	Radhnesada Solar Park	700
	Harsad Solar Park	350
	Dholera Solar Park Ph-I	1000
	Dholera Solar Park Ph-II	4000
Himachal Pradesh	Kaza Solar Park	1000
Jharkhand	Floating Solar Park	150
Kerala	Kasargod Solar Park	105
Madhya Pradesh	Mandsaur Solar Park	250
	Neemuch	500
	Agar	550

	Shajapur	450
	Omkareswar Floating Solar Park	600
	Chhattarpur Solar Park	950
	Barethi Solar Park	550
Maharashtra	Sai Guru Solar Park (Pragat)	500
	Patoda Solar Park (Paramount)	150
	Dondaicha Solar Park	250
Manipur	Bukpi Solar Park	20
Meghalaya	Solar park in Meghalaya	20
Mizoram	Vandal Solar Park	20
Odisha	Solar Park by NHPC	40
	Solar Park by NHPC	100
Rajasthan	Bhadla-II Solar Park	680
	Bhadla-III Solar Park	1000
	Bhadla-IV Solar Park	500
	Phalodi-Pokaran Solar Park	750
	Fatehgarh Phase-1B Solar Park	421
	Nokh Solar Park	925
Uttar Pradesh	Solar Park in UP	440

	Jalaun Solar Park	1200
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Ultra Mega Solar Power Parks

Ultra Mega Solar Parks, also referred to as the Ultra Mega Solar Power Projects are a series of solar power projects.

- The Ultra Mega Solar Parks were planned by the Ministry of New and Renewable Energy of the Union Government of India in December 2014.
- The government started this project to establish atleast 25 such Ultra Mega Solar Power Plants.
- The Central Government is responsible for providing the funding for these projects.
- Each of these solar power projects has a minimum capacity of 500 MW.

