

# SOLAR POWER WORLD BHUTAN



Can solar power plants help Bhutan achieve energy security? The Solar Plant in Rubesa is one such initiative that takes Bhutan a step closer to achieving energy security through a diversified and sustainable energy supply mix. The project particularly demonstrates the viability of solar power plants on a utility-scale.



Is grid-tied solar a viable alternative energy source in Bhutan? The commissioning and inauguration of the 180kW grid-tied ground mounted solar photo-voltaic power plant marks the start of Bhutan's investment in grid-tied solar energy as a viable alternative energy source in the face of soaring domestic demand and climate change.



Why should Bhutan invest in solar power? Like hydropower, sun is a bountiful resource Bhutan can tap into for producing renewable energy in keeping with our carbon neutrality commitments and also for enhancing energy security through diversification of energy sources. The commissioning and inauguration of the 180kW grid-tied ground mounted solar photo-voltaic power plant



Can a solar power plant boost hydropower supply in Bhutan? "Solar plant such as this can augment hydropower supply to meet our rapidly increasing domestic electricity demand, especially in winter months," he said. Electricity in Bhutan is mostly generated from hydropower, a renewable energy source, unlike fossil-fuel driven power plants that are major contributors to carbon dioxide emissions worldwide.



Who inaugurated a solar power plant in Bhutan? 4 October 2021: The Chairperson of the National Council of Bhutan, Lyonpo Tashi Dorji, inaugurated the 180 kW grid-tied ground mounted solar photo-voltaic power plant at Rubesa, Wangduephodrang today.

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How is electricity generated in Bhutan? Electricity in Bhutan is generated mostly from hydropower, an energy source which is renewable unlike fossil-fuel driven power plants that are major contributors to carbon dioxide emissions worldwide.



Paro-Bhutan has taken a major step toward expanding its renewable energy portfolio with the signing of a Memorandum of Understanding (MoU) at the Bhutan Innovation Forum between Druk Holding and Investments (DHI) and the Reliance Group. The agreement sets the stage for the development of 500 megawatts (MW) of solar power and 770 MW of ???



2 ? As 2024 ends, we must reflect on our work covering the U.S. solar industry from the last year. The previous 12 months have held an anticipatory air about the future of solar technologies and project development, as federal agencies handed down more guidance for the subsidies fueling record growth in domestic solar; as the residential market reeled from a huge ???



Bhutan Solar Initiative Project (BSIP) set up under Royal Command has implemented two Solar PV Projects in Thimphu. 250kW Rooftop Centenary Farmers Market (CMF) and 500kW Ground mounted at ???



The information provided in this report may be of use to energy planners in Bhutan involved in developing energy policy or planning wind and solar projects, and to energy analysts around the world

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World Bank says USD 600 million annually for energy generation to Bhutan is in the pipeline. Bhutan would invest in about 15,000 MW of hydro power and about 5,000 to 6000 MW in solar power. "Total ???



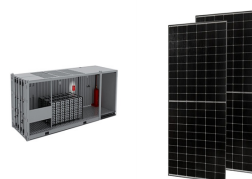
Get latest articles and stories on World at LatestLY. "Through the Sephu Solar Project, we are looking at how we can enhance the energy in the winter to meet our domestic demand. Due to economic development, now demand has increased and we are importing from India. Importing from India not only comes at a high price and exorbitant tariff but also the long ???



The global installed solar capacity over the past ten years and the contributions of the top fourteen countries are depicted in Table 1, Table 2 (IRENA, 2023). Table 1 shows a tremendous increase of approximately 22% in solar energy installed capacity between 2021 and 2022. While China, the US, and Japan are the top three installers, China's relative contribution ???



The pilot project, a 180-kilowatt solar photovoltaic (PV) plant was built at Rubesa village, in the western district of Wangduephodrang. It has the capacity to generate about 269,000 kilowatt-hours of energy per year, said Rozal Adhikari, an engineer in Bhutan Power Corporation Ltd's renewable energy division.

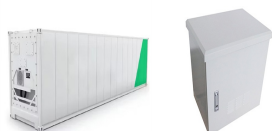


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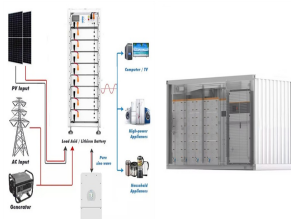
The project also includes a \$1 million technical assistance grant from ADB's Technical Assistance Special Fund and Clean Energy Fund. This grant will support the development of guidelines for rooftop solar expansion, promote new solar technologies, train local workers in solar-related industries, and bolster Druk Green Power Corporation Limited's ???



Bhutan's current installed power generation capacity sits at 2,452 MW. Under the partnership, the companies will also develop 500 MW of solar generation. Reliance Group also announced the establishment of a new ???



Solar Power World, the leading solar publication covering technology, development and installation, publishes the Top Solar Contractors List annually. The list includes hundreds of solar contractors and developers in the United States, listed ???

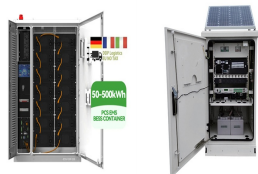


He added that those involved would greatly benefit and take part in Bhutan's upcoming solar projects. One imminent project is the construction of Bhutan's first mega solar power plant, a 17MW plant in Sephu, Wangdue. Today, all of Bhutan's electricity generation is from renewables such as hydropower, wind, and solar.



Tata Power has formed a strategic partnership with Bhutan's Druk Green Power Corporation Ltd (DGPC) to develop the 600 MW Khorlochhu Hydropower Project. The project is located on the Kholongchhu River in Eastern Bhutan's Trashiyangtse Dzongkhag. The project's clean power would assist Bhutan fulfil its growing electricity demand.

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Anil Ambani-run Reliance Group said on Wednesday it would jointly develop solar and hydro power projects in Bhutan along with the government's investment arm. is the world's largest



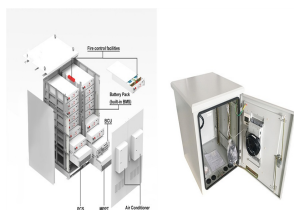
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The commissioning and inauguration of the 180kW grid-tied ground mounted solar photo-voltaic power plant marks the start of Bhutan's investment in grid-tied solar energy as a viable alternative energy source in ???



The pilot project, a 180-kilowatt solar photovoltaic (PV) plant was built at Rubesa village, in the western district of Wangduephodrang. It has the capacity to generate about 269,000 kilowatt-hours of energy per year, said ???



Manila, Sep 25 (IANS): The Asian Development Bank (ADB) said it has signed a US\$30 million loan agreement with Bhutan to fund a solar power project. The Distributed Solar for Public Infrastructure Project aims to generate up to 35 megawatts of solar power systems on rooftops of public infrastructure across the country, according to Xinhua news agency.



The groundbreaking ceremony for the country's first mega solar power plant with a capacity of 17.38-megawatt was held in Sephu, Wangdue yesterday. The plant, which is expected to complete by the end of 2024, will occupy 65.49 acres in Yongtru village. The World Bank (WB) predicts

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that Bhutan's economy will Finance ministry projects 5

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Jongmi Son, an Energy Specialist with ADB, highlighted the critical role of solar power in Bhutan's climate adaptation strategies. "Energy security has become a growing concern due to rising electricity demand and insufficient power supply, especially during the winter months," she explained. As the world grapples with the urgent need



data of the wind and solar resources in Bhutan. The solar resource data show that Bhutan has an adequate resource for flat-plate collectors, with annual average values of global horizontal solar radiation ranging from 4.0 to 5.5 kWh/m<sup>2</sup>-day (4.0 to 5.5 peak sun hours per day). Although



New Delhi: Reliance Group, led by Anil Ambani, has entered into a strategic partnership with Bhutan's Druk Holding and Investments Ltd. (DHI) to boost investments in the renewable energy sector, focusing on solar and hydropower projects. The agreement, signed today, includes plans to develop a total of 1,270 MW of clean energy, marking the largest ???



The key reason cited for solar energy development is that it is now competitive in deployment. Bhutan is mulling to complete the development of its first large solar plant project in Sephu, Wangduephodrang, which is of 17 MW. Additionally, the government is also implementing a rooftop solar power installation program on 300 households.



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Bhutan's current installed power generation capacity sits at 2,452 MW. Under the partnership, the companies will also develop 500 MW of solar generation. Reliance Group also announced the establishment of a new flagship company, Reliance Enterprises, dedicated exclusively to promoting investment in Bhutan's renewable and green energy sector.



Increasing solar power generation will reduce the potential need for energy imports during the dry season, when river flows and hydropower generation capacity are reduced. Bhutan is an environmental leader, and one of only three net ???



The Sephu Solar Project will be Bhutan's first mega solar power plant and once it is completed, the plant is expected to generate 26.15 million units of energy earning an annual revenue of Nu 132.29 million. The ???



World Bank says USD 600 million annually for energy generation to Bhutan is in the pipeline. Bhutan would invest in about 15,000 MW of hydro power and about 5,000 to 6000 MW in solar power. "Total addition that we have to do over the next 15 years is about 20,000 MW, in addition to the 2500MW that we have in operation just now, and about



World Bhutan Biomass potential: net primary production Indicators of renewable resource potential Database; IRENA Global Atlas; and World Bank Global Solar Atlas and Global Wind Atlas. Additional notes: Capacity per capita and public investments SDGs only apply to if renewable power did not exist, fossil fuels would be used in its place