

Does fishery complementary photovoltaic (FPV) power plant affect radiation and energy flux?

Meanwhile, the underlying surface of PV in land is significantly different from those in lake. The fishery complementary photovoltaic (FPV) power plant is a new type of using solar energy by PV power plant in China. The studies of the impact of FPV on the balance of both radiation and energy flux have been less presenting.

Are fishery complementary photovoltaic power plants a new surface type?

The deployment of photovoltaic arrays on the lake has formed a new underlying surface type. But the new underlying surface is different from the natural lake. The impact of fishery complementary photovoltaic (FPV) power plants on the radiation, energy flux, and driving force is unclear.

What are the coordinates of the fishery complementary photovoltaic demonstration base?

The central coordinates of study area 32°17'55" N, 119°47'39" E, and the altitude is 2 m. The fishery complementary photovoltaic demonstration base is composed of four ponds of 5.7-8.9 acre. The FPV is located on the central the pond with about the water depth from 2.5 m to 3 m.

What is fishery PV power (FPV)?

Nevertheless, the research sites are located on land, but land resources are scarce. The fishery PV power (FPV) plant is a new type of solar energy constructed on the water surface to avoid occupying land resources. Additionally, the efficiency of solar energy is greater than that of land because of the cooling effect of the lake.

Why is temperature difference important in fishery complementary PV power plant?

The difference in temperature in various water layers benefits the cultivation of different fish in the fishery complementary PV power plant. Fig. 6.

Where is fishery complementary FPV located?

The model base of the fishery complementary FPV is located in northern Yangzhong, Jiangsu, China. This city has a mean annual temperature of 17.1 °C. The mean annual precipitation and the accumulated sunshine hours are 791.8 mm and 1792.2 h, respectively.

complementary photovoltaic projects for fishing and light. The current site is enclosed aquaculture ponds and sea areas, with an elevation of about -2 to 5 meters. The land comprehensive ...

complementary photovoltaic power plant (FPV) in Yangzhong, Jiangsu Province, China, to explore this topic. The results indicated that the percent frequency of east wind (<4ms⁻¹) at 2 ...

In view of the uniqueness of its structure, the flexible bracket has a wide range of application scenarios, similar to sewage treatment plants, agricultural light complementarity, fishing light ...

Photovoltaic bracket type: double column fixed photovoltaic bracket. 03 The installed capacity of the PV parking shed project of Hongli Building in Shenzhou, Hebei is 328 kW with 90 parking ...

Recently the solar inclinometer ZCT1360J-LBS-BUS-77 has been used in an open-type Agricultural Light Complementary Photovoltaic Power Generation Program based in Ningxia China, The program is about 106 square ...

Energies 2020, 13, 4822 2 of 11 Joint Research Center, more than 20% of the world's energy consumption will be solar photovoltaic power generation in 2040 [7]; solar photovoltaic power ...

The results showed that the average light intensity of the unshaded area and the shaded area were 16,661.7 Lux and 2437.0 Lux. The average light intensity of the shaded area was 85.4% ...

In the fishing-light complementary mode, the power of the solar module is transferred due to the low temperature near the water surface. High conversion efficiency; the evaporation rate of the water surface is reduced by ...

Project Content: The fishing and light complementary photovoltaic power station uses the vast area of the fish pond to install solar panels on it to generate electricity. The photovoltaic ...

Photovoltaic (PV) power plants have shown rapid development in the renewable sector, but the research areas have mainly included land installations, and the study of fishery ...

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