

## 摘要

台灣是全球的太陽能電池工廠。市佔率僅次於中國，但國內的內需市場相對較小。台灣的電力來源中太陽能僅佔 1%，這表示台灣生產的太陽能電池大部分無法被使用在這座島上。事實上，台灣的环境很適合發展太陽能發電。隨著環保意識逐漸增加，台灣也在思索如何取經德國發展太陽能的經驗，達到非核家園的目標。

透過個案發現建置太陽能發電廠需要龐大的資金，因此本研究著重分析建置太陽能資金融資的方法、太陽能電廠證券化的可行性。透過資本市場資金的挹注，將帶來以下三個好處。第一、加速發展台灣太陽能的使用；第二、帶來台灣太陽能產業更大的空間去提升產品競爭力；第三、台灣可以減少核能及化石燃料作為能源的使用。

本研究探討太陽能的建置、融資方法，以及電廠證券化在台灣的可能性。隨著美國 Yield Co. 模式風行，本研究亦探討在台灣發展的可能性。在太陽能電廠的發展上，本研究分析從初期的評估、計畫流程、到 IRR 效益，並於最後歸納太陽能電廠證券化在台灣的可能性，以及提供建議作為未來發展的參考。

關鍵字：太陽能電廠規劃、電廠證券化

## Abstract

Taiwan is the factory for solar cells in the world. As the global market share of solar cell is only behind China, the domestic market is quite small. Taiwan's electronic power source only 1% comes from Solar. It means that even Taiwan produce lots of solar cells that could not be used in the island. In fact, Taiwan has good environment in using solar power. With the environmental awareness has grown up, Taiwan is considering the model from Germany for developing solar power, to achieve the goal of Nuclear-free homeland.

In the case study we found that if it needs big amount of capital to build a solar plant. Therefore, the case study analyzed the financing method, and possibility of securitization in solar plant. Through the funds come from capital market, there are three benefits. First, it speeds up the development of solar power used in Taiwan. Second, it brings the solar industry in Taiwan more space to improve their product. Third, Taiwan can reduce the energy comes from nuclear and fossil fuels.

The case study analyzed the building of solar plant, capital funding and the possibility of solar plant securitization in Taiwan. With the Yield Co. model in USA is the hot topic, the case also analyze the way used in Taiwan. Regarding to the solar plant development, the case analyze from the beginning of assessing, plan flow, and IRR benefit, and the conclusion shows the possible way of solar plant securitization in Taiwan and provide some suggestions for future development.

**Keywords:** Solar plant , Capital funding , Yield Co.