## 社區小水力之推動方式初探

## A preliminary study on the promotion methods of small hydropower for community

國立臺灣大學水工試驗所

助理研究員

副研究員

劉宏仁

林文勝

Hung-Jen Liu

Wen-Sheng Lin

## 摘要

由國際之小水力實務經驗發現,主要成果分成兩大部分:1.商轉小水力:以經營獲利為目標,投資興建小水力發電電廠,將所產生的綠電進行販售;2.社區小水力:以環境教育或地方創生為目標,透過行政補助設置小水力發電設施,在地發電、在地使用。

目前國內農業部門積極推動農田水利小水力發電設施之建置工作,本研究探討在一定規模下(裝置容量小於 100kW)之社區小水力,可如何有效推動,對於適合當地自發自用的模式進行探討。初步將其分為三個規模樣態:1kW 以下、1kW~10kW、10kW~100kW,透過社區、廠商、政府、學校間的合作,以測試、補助、示範等方式,尋求共同推動農村用電自給自足之可行性。

關鍵詞:社區、小水力發電、農田水利

## **Abstract**

Based on the international practical experience of small hydropower, the main achievements are divided into two parts: 1. Commercial Small Hydropower: With the goal of operating profit, invest in the construction of small hydropower plants and sell the green electricity generated; 2. Community Small Hydropower: With the goal of environmental education or local revitalization, small hydropower facilities are set up through administrative subsidies to generate electricity and use locally.

At present, the domestic agricultural department is actively promoting the construction of agricultural-irrigation-based small hydropower facilities. This study explores how community small hydropower can be effectively promoted under a certain scale (the installation capacity is less than 100kW), and conducts a preliminary discussion on a practical model of generating electricity locally for self-use. It is initially divided into 3 scale types: below 1kW, 1kW-10kW, and 10kW-100kW. Through cooperation among communities, manufacturers, governments, and schools,

by testing, subsidies, demonstrations, etc., we will seek to jointly promote the feasibility of rural electricity self-sufficiency.

Keywords: Community, Small Hydropower, Agricultural Irrigation