



An Analysis of Household Prosumerism's Adoption Barriers

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ABSTRACT

In the electricity market, the Consumer-to-Prosumer Transition Model (CPTM), which interweaves consumption and production, has been practiced in European and American countries for many years. However, Taiwan's growth rate in this area remains low, and information asymmetry is a challenge. This study uses the Extended Unified Theory of Acceptance and Use of Technology (Extended UTAUT) combined with Sustainability Gap as a conceptual framework and adapts it to the current situation in Taiwan's industry to explore the influence of variables such as empowerment and barriers on the degree of incentives for consumers to become prosumers. Data was collected through a questionnaire survey, and hypothesis testing analysis was performed on each variable.

The study aims to identify the barriers that prevent Taiwanese consumers from becoming prosumers and the factors that motivate prosumers in Taiwan to install solar energy generation systems (SEGS). By considering both perspectives, the study provides policy recommendations to facilitate the transition of consumers into prosumers. Additionally, the study provides a feasible direction for the energy industry and government units to effectively achieve Taiwan's carbon emission reduction goals.

Keywords: energy, prosumer, barriers