

عنوان مقاله:

Investigation of the effective factors in the adoption of photovoltaic systems in Iranian households using causal loop diagrams

محل انتشار:

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خلاصه مقاله:

Supplying sustainable and clean energy is vital for any country. Therefore, policymakers throughout the world are looking to replace renewable resources. Accordingly, the electricity generation from solar energy by photovoltaic systems has been enhanced by governments due to its environmental and sustainability benefits in comparison with fossil energy resources. The home sector with a share of about ۳۲% of electricity consumption is the second largest electricity consumer sector in Iran. Reducing electricity generated by fossil fuels in this sector contributes significantly to reducing Greenhouse Gases emissions. However, the diffusion of photovoltaic systems technology in households is strongly influenced by their adoption to use. This research uses a system approach and is developed by the causal loop diagram. The aim was to investigate the diffusion of photovoltaic systems technology in Iranian households. Results demonstrate that the uptake of photovoltaic systems by households reflects an interplay between economic, social, political, technical, and demographic aspects. Furthermore, owing to the unstable policy in Iran, social capital can considerably affect the household's behavior and decision.

کلمات کلیدی:

.Renewable energy, Photovoltaic systems, Diffusion of innovation, System dynamics, Social capital

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