

International Conference on Carbon Capture, Storage & Utilization 2026: Pathways to Net-Zero (ICCCSU 2026)

Conference Proceedings

February 23, 2026 - UAE

The Antecedents of Consumer Attitude Towards the Use of Renewable Energy in the United Arab Emirates

Sarwat Jahan

Head of Sustainability & Assistant Professor – Marketing, Symbiosis International University Dubai, Dubai Knowledge Park, United Arab Emirates

Abstract

UAE has a strong dedication to sustainability and environmental conservation, as evident in its varied energy production methods. While the country predominantly relies on non-renewable fossil fuels like natural gas and oil as its main energy sources, it is actively pursuing ambitious objectives to enhance the adoption of renewable resources such as solar and wind power. The Energy consumption in the United Arab Emirates residential sector has an intense relationship with consumers' physical, demographic, and behavioural characteristics. This study aims to understand how consumers' physical, demographic, socioeconomic, and behavioural characteristics affects their acceptance of renewable energy in the residential sector in the United Arab Emirates. This study tested the theory of planned behaviour (TPB) model to predict consumers' intentions to use renewable energy in the United Arab Emirates and included the "willingness to pay" variable. For this study, data was gathered through a questionnaire survey, receiving responses of 400 residents from all seven emirates of the United Arab Emirates. The findings showed that the average household income in the residential sector has an important effect on consumers' intentions to use renewable energy. In this study, the subjective norm (perceived behavioural control) and the willingness to pay construct significantly affected consumers' intentions to use renewable energy, while attitudes toward the behaviour did not. The limitations and recommendation for the influencing consumers' attitude towards renewable energy also discussed.