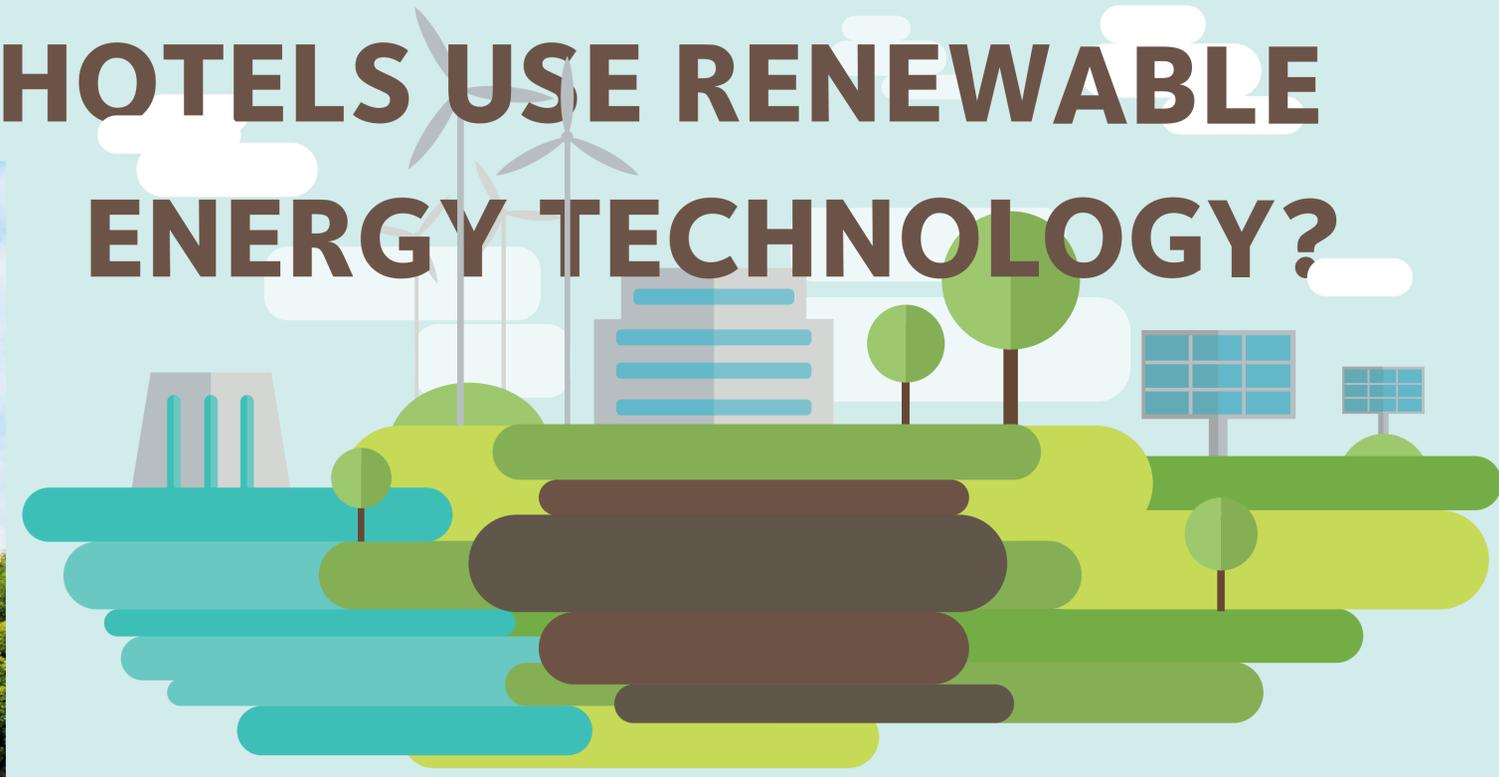


WHAT IF HOTELS USE RENEWABLE ENERGY TECHNOLOGY?



KEY FINDINGS

- 1 Lengthy renewable energy technology improvement and delay hotel investment decision process cause inconsistent government subsidy support.
- 2 Hotels leaving the grid increases grid electricity price, hence the tragedy of all Australians.
- 3 Tourists will demand more hotels with renewable energy, leaving some hotels that cannot adopt the technology disadvantaged.

RESEARCH OBJECTIVES

- 1 Identify variables and their roles related to renewable energy technology adoption in the hotel sector;
- 2 Illustrating the implications of RET adoption decision in the hotel with a casual loop diagram;
- 3 Using the developed diagram to assess the potential drivers, barriers and consequences of RET adoption withing Queensland.

RESEARCH PROBLEMS

- 1 Research about renewable energy outside of the hotel context highlight an interrelated system of lack of funding, lack of knowledge about renewable energy, high technology costs, inconsistent political leadership and policies, high energy price, and lack of workforce among others. Thus, the overall renewable energy system must be examined.
- 2 Renewable energy technology adoption in the hotel sector is low, despite the technology's potential to reduce a hotel's energy consumption and carbon emissions. Understanding what drives and hinders the hotel sector from adopting technology can promote a better uptake. There is also limited research that examines drivers and barriers to RET adoption in the hotel context.

RESEARCH METHODS

This research uses a systems approach to analyse the interactions among key variables influencing RET adoption. Systems approach assumes a feedback loop that A will impact B, B will impact C, and eventually C will impact A.

- 1 Thirty-four (34) variables related to hotel and renewable energy adoption are identified through systematic literature and experts' reviews.
- 2 Relationships between 34 variables were ranked by 2 hotel accountants, 2 hotel engineers, 2 hotel owners using a structural analysis method MICMAC.
- 3 Based on MICMAC result, we drew a causal loop diagram linking variables together indicating feedback loops and their causal relationships. The diagram was modified and confirmed through 11 stakeholder interviews, 1 stakeholder engagement workshop, 2 conference presentations.

