Solar PV and Storage in Residential Communities

Introduction

Fossil fuels are not a sustainable energy source and sustainable alternatives will have to become more widely adopted. Solar power unit installations are becoming more common in many residential and commercial structures. Storage options now allow for even more energy generated to be used on-site rather than being fed back to the grid for little return.

Use of renewables should be more widely adopted both due to environmental factors (reduction in emissions) and financial incentives cost reductions after the system has been paid

Objectives

Scope of the Project

Solar power and home storage are still quite new technologies and are therefore expensive. Lay people don't necessarily have a very comprehensive grasp on the processes behind solar power generation and installation. The purpose of this project was to first identify gaps in the knowledge base through a survey, and then provide the most appropriate information (along with an easy



ref: news.yahoo.com

- Joseph Banks Aged Care Centre (39.78kW)
- Geraldton Fisherman's Co-operative (99.84kW)

Bachelor of Engineering

Sustainable Energy Systems

- Alkimos Beach (1.2MWh) (pictured left)
- Gold Coast apartment building (7.3kW system recommended by Wattblock)

Project Outcomes

- Results and Analysis of survey results to determine necessary information to be included (graph below)
- Solar Installation Calculator Program

- To gather and analyse public opinion and perception (survey)
- To present Case Studies to assist in analysing relevant issues



- To provide an analytical tool to facilitate decision making as an example of ways to increase uptake of battery storage as an option/enhancement
- To provide results of an investigation of Relevant Factors related to solar installations in order

