

Lady Elliot Island Eco Resort, Queensland

Lady Elliot Eco Resort has a strong commitment to reducing their electricity and took initiatives to reduce their energy consumption. Major achievements include:

- return on Investment achieved within 3.5 years
- annual financial savings in fuel of \$270,000.

The vision

Lady Elliot Island Eco Resort has a vision to be the custodians of the pristine environment they are a part of. They aspire to have an energy efficiency standard equal to or better than, that required by legislation and best practice guidelines.

The Lady Elliot Island Eco Resort is more than living up to their vision by reducing their annual energy usage by 65%.

The business

Lady Elliot Island is located at the southern tip of the Great Barrier Reef. The Lady Elliot Island Eco Resort is one of 3 island resorts on the Great Barrier Reef and is located within the highest possible protection zone of the Marine Park.

Established in 1984 using prefabricated buildings, the eco resort has undergone a series of transformations to improve the visitor experience while at the same time reducing its energy usage.

Their energy efficiency journey has taken them beyond what is required to maintain the well-being of the island.

Challenges

Island conditions:

Island conditions are akin to being on a boat, being wet and humid most of the time. Lady Elliot Island Eco Resort has needed to understand how systems will stand up to the elements including moisture and corrosion from the salty air.

Being prepared

Lady Elliot Island Eco Resort is serviced by a barge on demand basis, generally 3-4 months. Ensuring that the island has the necessary back-ups for possible equipment failures requires systematic measurement of what is used and what is required.

Pioneers

As a leader in the introduction of new technologies on offshore islands, the resort has faced unforeseen challenges and has needed to respond accordingly.

Energy-efficiency achievements

Energy-efficient fittings

The Lady Elliot Island Eco Resort has achieved annual energy savings through the replacement of old fittings with new energy-efficient equivalents.

Initiatives

- Replacing halogen globes with compact fluorescents which last longer and cost less to use.
- Shift from electrical to gas appliances including gas hot water systems and gas conventional ovens.
- Removal of clothes dryers from staff quarters in order to reduce unnecessary use of energy.

How to do it: Removing Unnecessary Appliances

Using renewable energy

Innovative technology

Lady Elliot Island Eco Resort prides itself on going above and beyond the call duty in reducing energy usage by implementing innovative measures.

Initiatives

- Installation of a hybrid power system that combines 140 square metres of solar panels, battery banks and inverters and a new small generator which was one of a kind in Australia at the time.
- Installation of 96 solar panels reducing diesel consumption to 100 litres/day.

How to do it: installing solar panels

When deciding to implement a solar panel system for your business it is important to seek a private sector provider in providing advice for a system that would best suit you and your business. The Clean Energy Council provides a list of accredited solar panel installers and solar products to ensure access to expert advice: <http://www.solaraccreditation.com.au/>

Promoting energy efficiency

Lady Elliot Island Eco Resort is proud of their efforts in reducing energy consumption and uses various avenues to promote their achievements.

Initiatives

- The resort offers information sessions for visiting schools and universities and other interested parties about what you can do at home and how this relates to resort initiatives.
- They have participated in interviews with national and international journalists, working with experienced researchers wanting to learn more in the field.
- The resort also works with the Lizard Island Research Station, sharing experiences in what does and doesn't work.

How to do it: promoting energy efficiency

You can easily promote your energy efficiency efforts through various avenues including:

- Giving a tour of your energy-efficiency initiatives to guests and neighbourhood.
- Giving guests a memento to share with their friends to show their contribution to energy saving at the business.
- Networking with other organisations and share your experiences and gain insight on what works for others.

The future

Lady Elliot Island Eco Resort understands that energy efficiency is a continual journey and has numerous ideas for furthering their journey including:

- installing LED lights in new construction on the island
- introducing a wind tower.

'I can't stress enough, talk to other people with an open mind about what you want to achieve. It can result in huge savings for you in what would otherwise involve a lot of research' - Robert Thomas, project manager