

Tonga. The True South Pacific.



experience True Adventure www.thekingdomoftonga.com

KINGDOM OF
TONGA
XXX THE TRUE SOUTH PACIFIC XXX



Overview

Tourism Sector

- **Tourism has been identified by successive Governments, private sector, and communities as the Major economic development opportunity;**
 - *With potential to provide broad based employment*
 - *More Income generation opportunities*
 - *Support retention of cultural traditions*
 - *Sustainable management of the nation's environmental assets.*
- **Tourism sector in Tonga has failed to grow at the same pace as many neighbouring countries.**
- **Tonga is currently ranked 9th out of the 15 South Pacific countries in terms of visitor arrivals.**

Overview

Tourism Sector



176 Islands, One Kingdom

www.tongaholiday.com



Overview

Tourism Sector

- **With GDP, Tourism contributed 20% of National GDP**
- **Nevertheless, major development endeavours and attempts to develop a clear way forward for the future growth of the Sector. Eg. Tonga Tourism Sector Roadmap.**
- **Tourism Sector Framework is presented to establish the strategic vision and high level goals and objectives for the Sector.**
- **It also identifies for Government to support a conducive enabling environment that enhances investment and growth;**
'Government to encourage investment in tourism by addressing issues and impediments to the industry as identified by other stakeholders.'

“Off Grid Power Supply”

Case study 1





- Fafa Island Resort, 18 acres atoll, located 15-25 minutes by small boat from Nuku'alofa.
- A small but delightful Resort with only 13 traditional bungalows OR Tongan fales
- Fafa Island Resor now possesses the biggest single solar electrical plant in Tonga.
- Resort now is 100% self-sustainable for electrical power enabling it to be self-sufficient

TONGA FAFA ISLAND RESORT

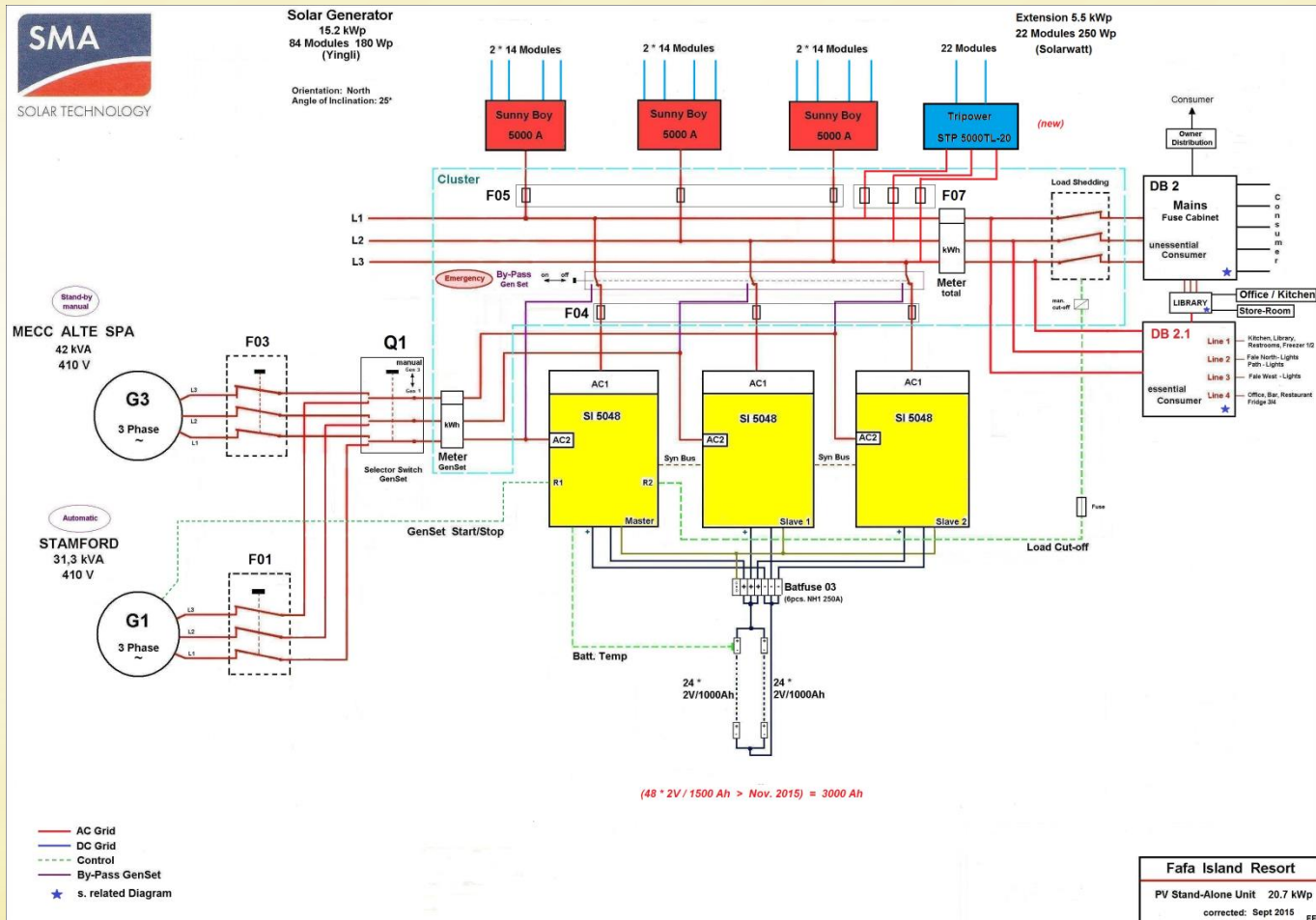
“Off Grid Power Supply”

- **Initially runs by 48 solar panels**
- **recently extended with another 22 panels, a total of 70 Solar Panels**



TONGA FAFA ISLAND RESORT

“Off Grid Power Supply”



TONGA FAFA ISLAND RESORT

“Off Grid Power Supply”



TONGA FAFA ISLAND RESORT

“Off Grid Power Supply”

RE Applications;

- Power grid integration
- Desalination
- Proposal for a **small wind turbine** to add up the system for longer cloudy periods.



TONGA FAFA ISLAND RESORT

“Off Grid Power Supply”

- Off Grid Power Supply (15.2kWp) – designed and installed by a German consultant and supported by two well known German companies SMA & Kirchner Solar Group based in Kassel.
- A move to clean power – it was long cherished dream come true for Owners of the Resort, Josefa and Rainer (Resorts co=owners).
- Forefront of eco-tourism, have developed a system that can also be an example for village and tourism developments throughout the Pacific – esp. in the outer islands.

'UTU'ONE B&B

MA'UFANGA

Case study 2



‘UTU’ONE B&B

“50% Grid Power Supply”

‘UTU’ONE B&B

“50% Grid Power Supply”

- A 9 room Bed & Breakfast, 50% Grid Power Supply, located along waterfront Vuna Rd of Nuku'alofa
- Type of Renewable Technology – Solar photovoltaic electricity (PV)
- Size of the Renewable System – 20%
- 42 Solar Panels
- Occupancy rate (65%)
- Off grid power supply only during Day-time

'UTU'ONE B&B

“50% Grid Power Supply”



‘UTU’ONE B&B

“50% Grid Power Supply”

- System is Pre-set to automatically switches to TPL Power if not enough energy is collected.

CHALLENGES & RISKS

- **Financial challenges**
whole system, personnel and equipments (solar panels and batteries) required for installation are expensive.
- **Political issues behind the scene**
TPL is a Government business, run by Board of Directors (partly consent with movement to 100% displacement of power generation by diesel fuel). A big impact on annual dividend provided to Government.
- **Limited technical experts/ consultants available locally**
- **Batteries run out earlier than expected**

FUTURE PLANS & OPPORTUNITIES

- **TERM (Tonga Energy RoadMap) Plan**
To provide a clear direction on how RE and Energy efficiency projects will be resourced, implemented and monitored.
- **4 strategic priority areas involved with TERM Plan;**
 - (Supply efficiency) Efficiency of conversion of petroleum to electricity
 - (Demand efficiency) efficiency of conversion of electricity into consumer electricity services)
 - Displacement of Power generations by diesel fuel
 - Displacement of Power generations by other RE sources and extending to RE to remote areas.

MALO 'AUPITO