#### Solomon Power



# **Expanding Generation Expanding Network**

#### Presentation by Hemant Kumar June 2016

Solomon Islands Electricity Authority Trading as Solomon Power



### Solomon Islands

- Nine Provinces
- Over 900 small islands spread over vast area of Sea
- Population @ 512,000. Honiara @70,000.
- Foot print of electricity very small.
  - Access in Urban Honiara 64%
  - Access in rest of the country 6%

• Grid connected electricity – 12 % of the Population

# **Strategic Goal**

• Accessibility of electricity to all Solomon Islanders - 2050.

• Foot print of electricity in the Nation is very small, and penetration of electricity is less than 16% in the Country.

Increasing affordability of electricity.

# Key Challenges (1)

Increasing the foot Print of electricity

Population spread over many islands

- Physical accessibility
- Land Issues/ Consultation Process
- Network expansion Building in Road Reserve

## Challenges in getting there



#### Port facilities for larger vessels required



# Land Issues – Customary Land -Consultation



# Key Challenges (2)

• cost of electricity - is one of the highest in the South Pacific.

- Pricing regulation is purely based on price of diesel
- Over reliance on diesel
- Deters potential customers from joining the network
- The network is concentrated in Honiara

Connection cost is high – in house wiring/service connection

#### Strategy 1 -Least Cost Generation - Expansion

- Renewal sources of energy will reduce the price
- Micro grid Mini grid Hybrid 415V generation systems (Solar, Batteries, back up diesel). Cash Power pre-pay meters
- Only two staff per site
- Modular design for scalability @150 + connections
- 40 Mini Hybrid Systems planned in the Islands
- 3 already approved -being implemented. 37 prioritised.
- planning studies has commenced for additional ten sites.

# Strategy 2 - Existing network expansion Reduction in Tariff

- 15,400 customers at present
- Double this to 30,000 by 2021
- Increase in customer base will reduce price
- Reduction in fixed cost per customer
- Reduction in tariffs
- Proposed Output Based Aid Program of World Bank to subsidise house connections and wiring

### **Grid-Connected Solar Power Plants**

- Support from ADB
- Total 2 MW of Hybrid (Solar, battery storage and diesel back up)
- At existing outstations in Munda, Malu'u, Tulagi, Lata and Kirakira
- These will replace the existing only diesel generation systems
  Project to be executed during 2016, 2010
- Project to be executed during 2016-2019

#### Who should take the Lead?

- What comes first economic growth or electricity infrastructure
- Chicken and egg situation
- Economic growth and electricity go hand in hand
- Solomon Power is taking the lead
- There will be growth wherever network exists

#### • Thank you.