



# Remote Community Electrification

## AIEMF Presentation 2010 - Perth

**Graeme Eley**  
**Manager, Business Development**  
**Islanded Systems Development**

# Today's Presentation

1. Horizon Power and our service area
2. Locations and Nature of WA remote communities
3. The electrification program
4. Project scope
5. Community Engagement
6. Respect for Heritage and Culture
7. Energy needs analysis and Education
8. Local employment
9. Lessons learned
10. Questions

# Horizon and our Service Area

- Government own company
- An integrated utility
- Supply area = 2.3M km<sup>2</sup>
- 42,000 customers
- 34 power systems
- 870 GWh sent in 2008

## Regional Depots in:

- Kimberley region (blue)  
Broome & Kununurra
- Pilbara region (tan)  
Karratha & Port Hedland
- Gascoyne (brown)  
Carnarvon
- Esperance (grey)  
Administrative office in  
Perth



**Western  
Australia**

# Location of remote communities

- 287 remote communities across WA
- Many in very remote and isolated locations
- Most not connected to electricity grids
- Very poor access roads
- The “wet season” (monsoon) cuts access for months at a time
- Only 20 with remote populations over 250
- Approx. 200 “outstations”



# A northern remote community



**Kalumburu**

**Pop'n. 450**

# Social context of communities

- Most large communities were based on church missions
- Many are not located on traditional lands
- Some have mixtures of tribal groups
- Self governing since 1970s and 1980s
- But many lacked capacity
- Different Government policies have eroded culture, dignity, social systems and capability



# Community views



# Desert community





# Nature of remote communities

- Community councils
- Few employment opportunities
- Very low incomes – most are welfare recipients
- No mainstream essential service providers
- Mostly communal (not private) property
- High levels of vandalism
- Alcoholism and substance abuse
- Widespread health problems



# Electrification program

- 20 priority communities
- Populations over 200 persons
- Hub communities for services
- Cost sharing by Australian and State Governments
- New hybrid power stations & upgraded distribution networks
- Normal regional town reliability standards
- State standardised tariff
- Local employed Essential Service Officers (ESOs)



# Project scope

## *Community engagement through whole of project*



- Land issues: Native Title, Aboriginal heritage, flora, UXO
- Integrated power supply (generation, distribution & retail)
- Power station location: noise, fuel tanker access, water source protection
- Underground distribution systems in cyclone areas
- Retail arrangements appropriate to this customer group

# Engagement

- All communities have unique social features
- Understanding this is critical to project success
- Early contact essential - with sustained engagement during project
- Formal and informal leadership; elders, women, children
  - **Energy needs assessment**
  - **Resident education**
  - **Foster community employment**



# Community meetings



# Respect for Heritage/Culture

- The importance of 'land' to Indigenous Australians is not as an 'asset', but is the basis of spiritual systems
- Laws:
  - protect Aboriginal heritage
  - provide NT rights over lands
- Kinships and special time periods
- Horizon Power has:
  - A Reconciliation Action Plan
  - Cultural training
  - Heritage and Land officers
  - Indigenous Employment strategy



# Energy needs analysis

- Understanding energy needs is critical
- Correct energy source to match needs
- Efficient energy use



House repairs and  
appliance changes

# Education

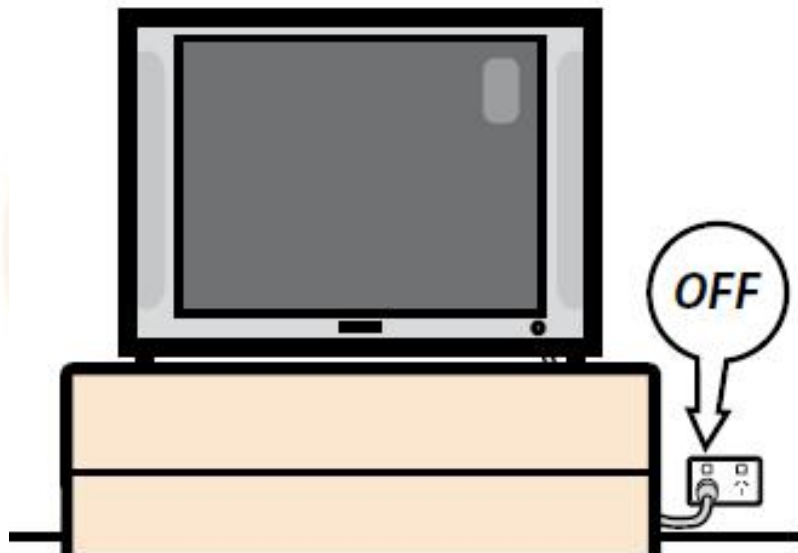
- Electricity consumption and budgeting
- Use of pre-payment meters
- Electricity safety
- Literature in local languages
- Role model & leadership programs





# Behavioural Change

## Pawa miranykanyinma



Pawa tjatapungama TV-ngkatja,  
mirrka paalpayingkatja, kapi  
warulpayingkatja, warntu  
partjilpayingkatja, kutjupa-kutjupa  
pawa tjunkupayinya tjatapuwa.



Kapi warringka warntu  
partjinma.

# Local employment

- Employ & train local Essential Service Officers
- Build local skills
- National recognised qualifications
- Strong mentoring and supervisory arrangements
- Community role models



# Lessons Learned

- Local engagement critical
- Needs Aboriginal engagement capability
- Energy needs analysis is also important
- Education a key for sustainable project success
- Appropriate retail arrangements
- Local employment provides significant benefits
- Comprehensive approach to planning; housing, utilities & services
- Appropriate system design standards had to be created
- **Horizon Power is now well positioned to take the “package” interstate and overseas**

**Remote doesn't have to mean isolated**

# QUESTIONS

