Solar and First Nations Communities

Opportunities & challenges of the clean energy transition

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Agenda

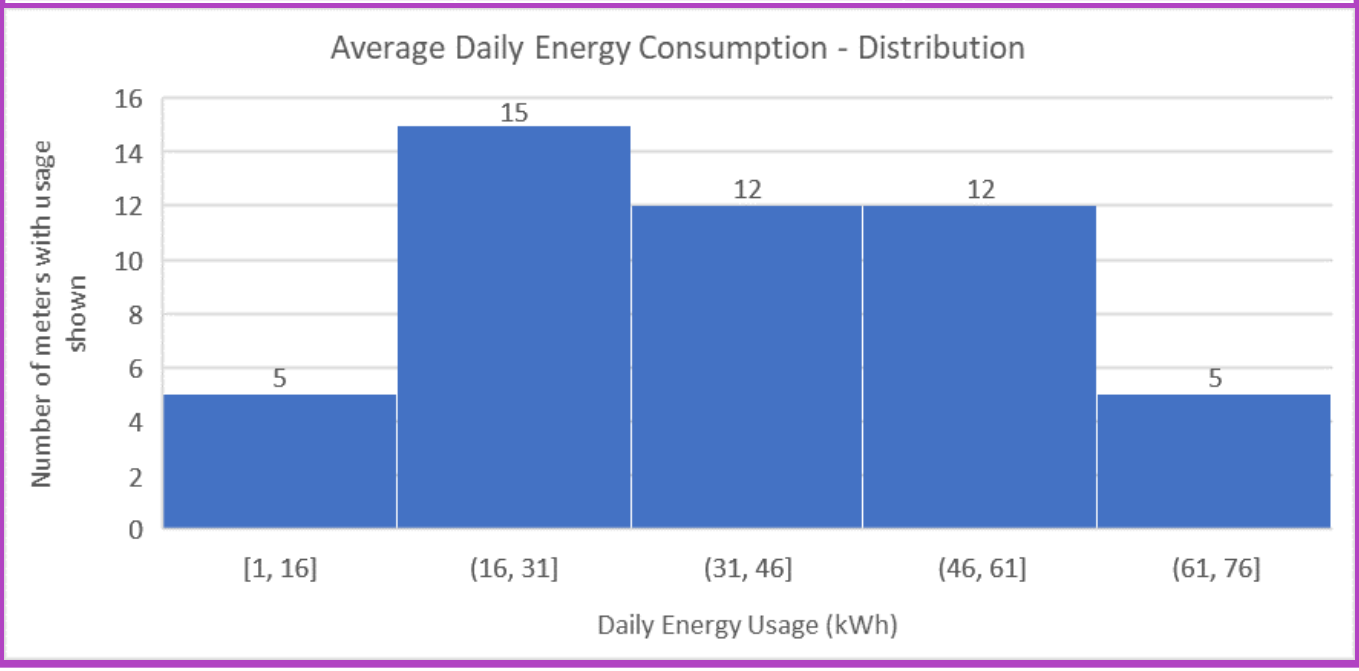
- Remote communities – Status quo energy delivery
- Household energy consumption
- Systemic disadvantages
- Dirty & expensive generation
- Solar – Opportunities & Barriers
- Moving forward

The status quo of remote energy

Comparing this scenario to your current experience of energy, does this feel equitable?

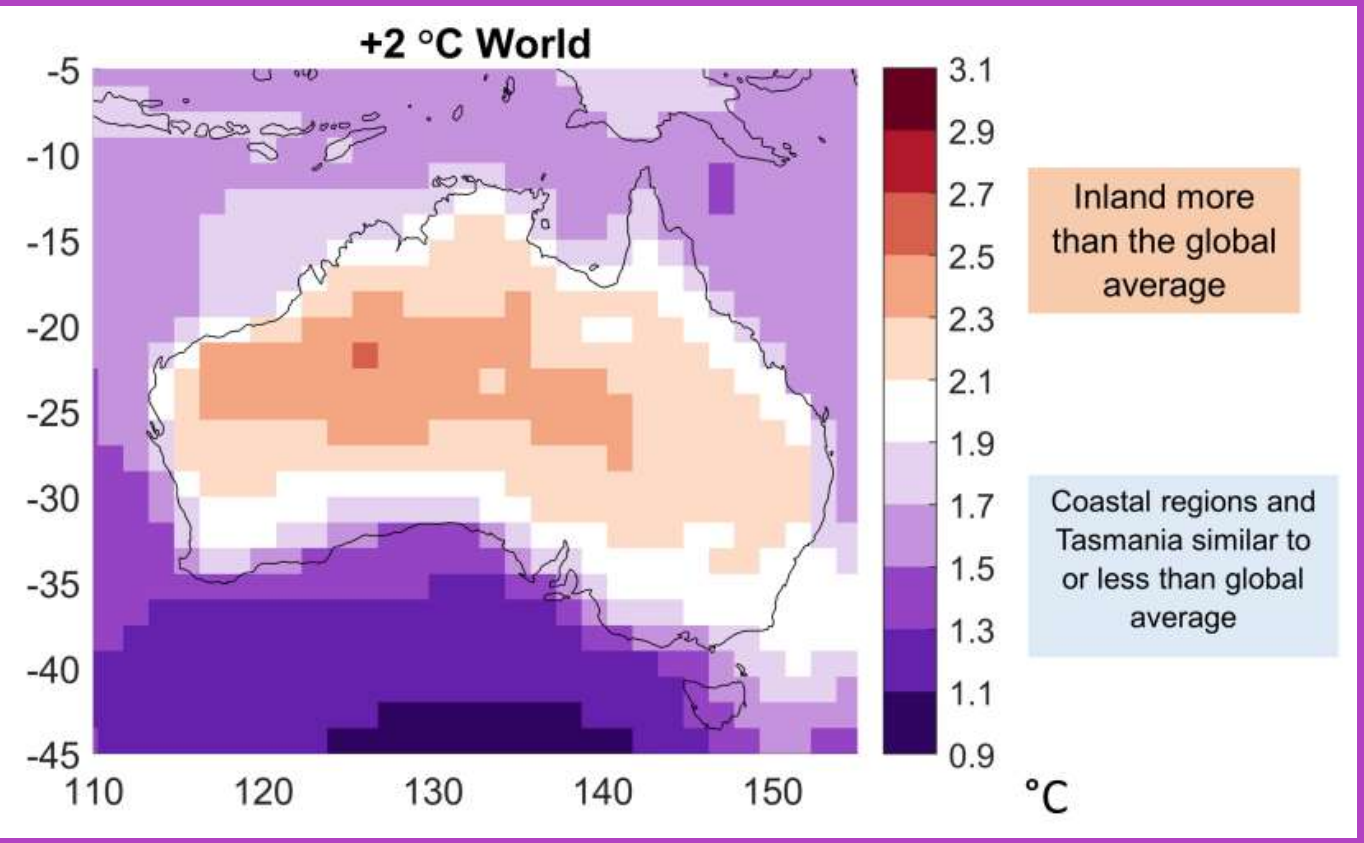
Energy Consumption

Location	Average electricity bill	Comparison to national average
National average	$1,645 / year	
Melbourne, Vic	$1,290 / year	22% lower
Mowanjum, WA	$4,702 / year	186% higher



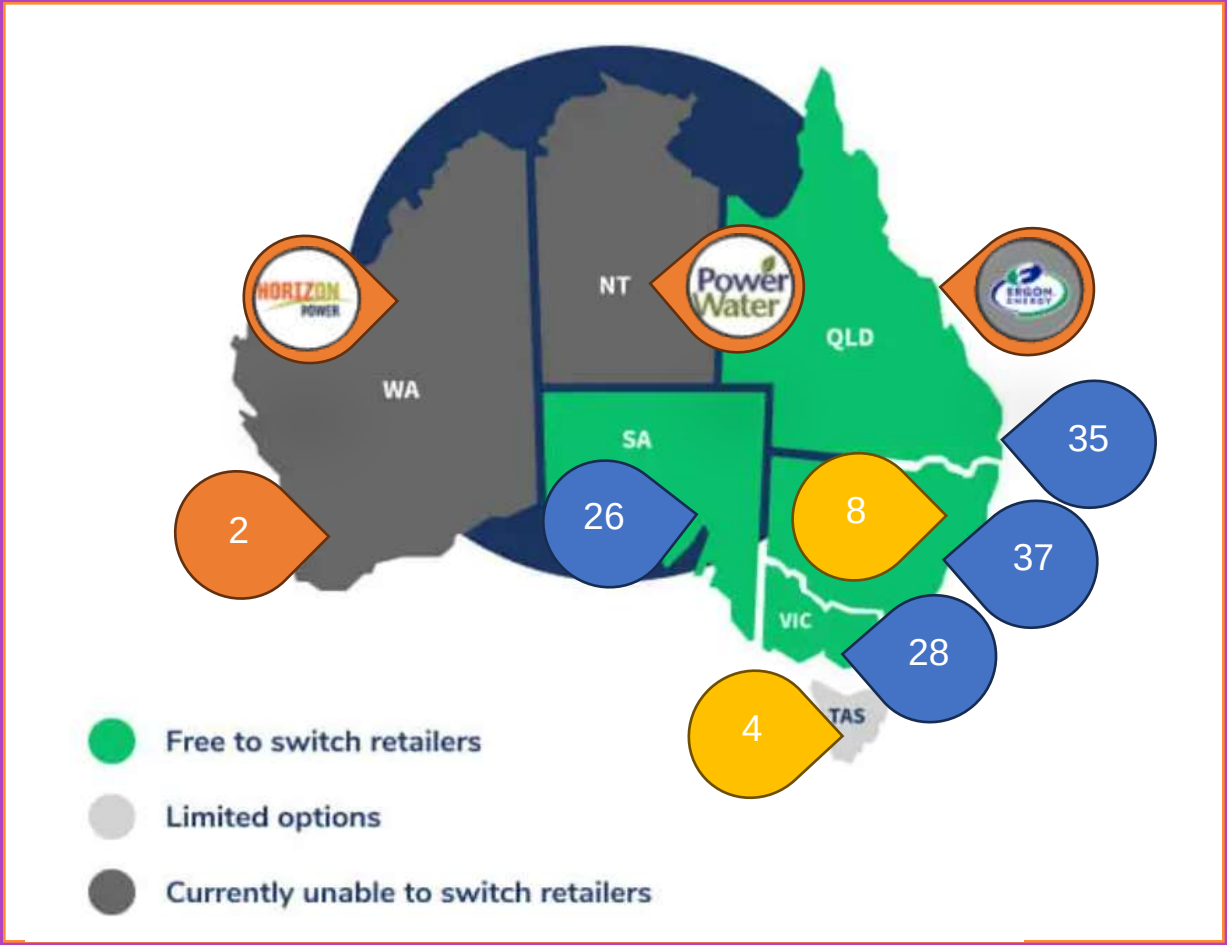
- Average consumption in Victoria
  22 kWh/day
- Victorian households with solar
  19 kWh/day
- Average consumption in Mowanjum
  38.3 kWh/day
- Mowanjum households using 74% to 100% more energy than Vic households

Systemic Disadvantages



- Housing shortages = overcrowding
- Climate
- Poor aged, housing stock
- Scorecard assessments of 2 to 3 out of 10 stars1
- Energy inefficient appliances and limited access to alternatives
- Low energy literacy

Systemic Disadvantages



- No retailer options
- 100% diesel generator power in many communities – further contributing to climate change
- No access to rooftop solar power
  - No home ownership
  - Pre-payment meters
  - Lack of capital
- "Self-disconnection" by pre-payment meters
- Tariff equalization = equality not equity

Image source: https://compareclub.com.au/energy/moving-house/

Data source: STATE OF THE ENERGY MARKET 2021 Retail energy markets

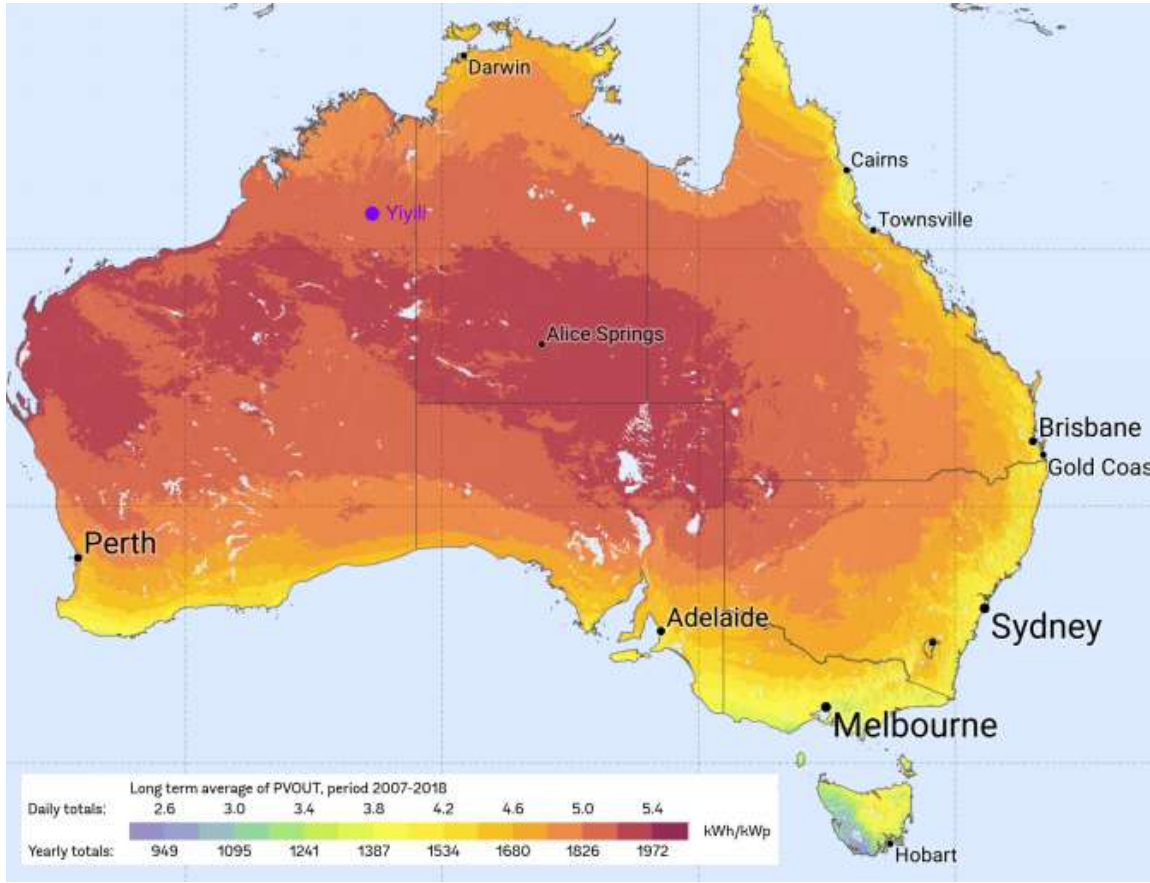
Dirty & expensive generation

- Communities using ~600L to 1,000L diesel per day on average
- Powering 30-40 homes, a school, a shop + health centre.
- LCOE >60c/kWh
- DoC losing ~$150,000 per year

Opportunities & Barriers

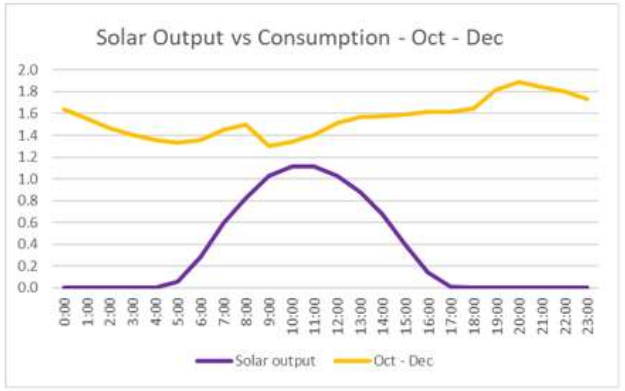
Opportunities

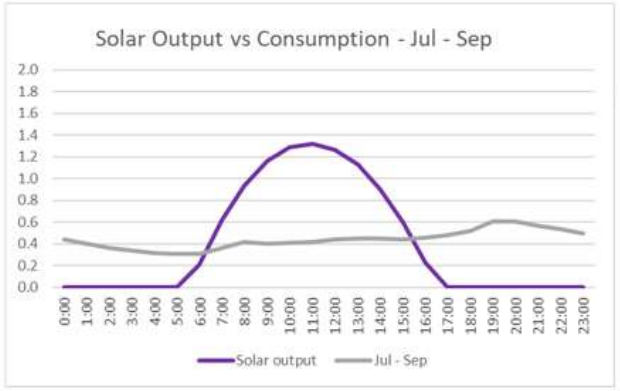
- World-class solar resources
- Clear cost savings for PV compared with diesel - tax payers money!
- Solar PV more appropriate than wind
- Rooftop PV provides direct benefits to customers
- Communities are generally supportive of renewable energy technologies
- Job creation
- Self-determination & control



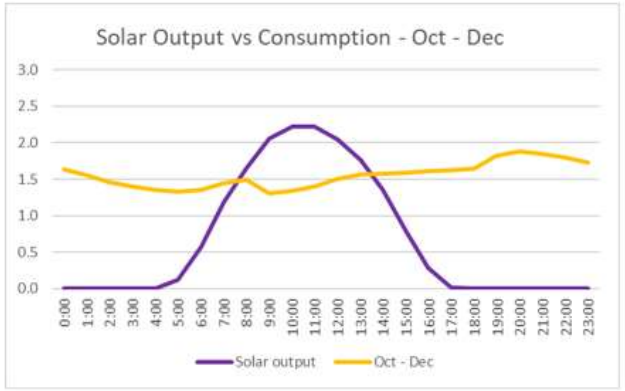
Opportunities & Barriers

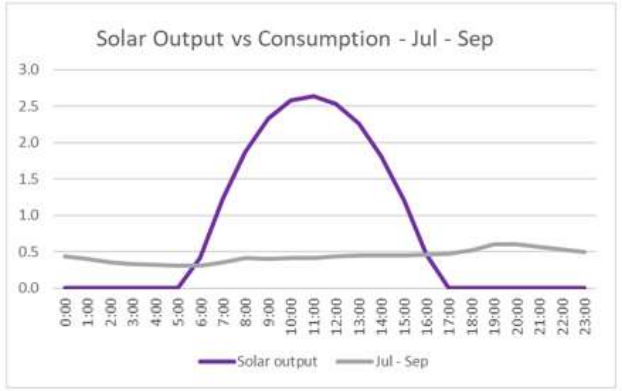
2kW





4kW





Barriers

- Isolated network hosting capacity
- High night-time energy usage
- Residents don't own their houses
- Needs to be paired with energy efficiency measures for best value
- High costs and lack of capital
- Lack of pathways with utilities
- Lack of incentives for utilities
- Cyclones & vandalism

Moving Forward

14 <u>community led</u> energy projects and counting!

+

a Kimberley EE housing upgrade proposal (WA Gov)

+

>10 RE feasibility studies for Indigenous communities

+

Plans for household solar for some WA Indigenous communities

First Nations Clean Energy Network

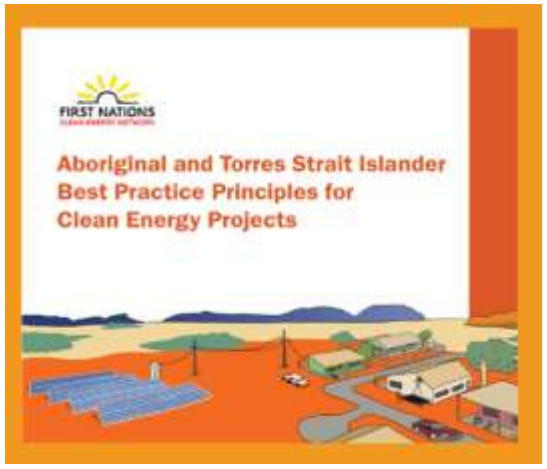
Purpose: To empower our first nations communities to participate in and drive an equitable clean energy transition.

We will support communities to address the barriers to clean, affordable and reliable power, securing good jobs and strong economies, so we can continue to live and work on Country if we choose.

FIRST NATIONS
CLEAN ENERGY NETWORK

INDIGENOUS LED - ESTABLISHED IN 2021 – 400 MEMBERS – OVER 7,000 SUPPORTERS

www.firstnationscleanenergy.org.au



Thank you

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