



# Planning for Jobs > 100kW

Contains Sneak Preview of Content  
Exclusive to SunWiz, & discount offer

Solar2014



# About SunWiz

- Most prevalent, accurate and up-to-date provider of Australian PV Intel since 2009
- Trusted by PV Industry Organisations, Top Manufacturers Distributors and Retailers
- + opportunity identification, financial evaluation, engineering and project assistance
- Actively engaged in RET Review

SunLoving, Eager to Please, Hard Working & Intelligent.... Sunny is part of SunWiz

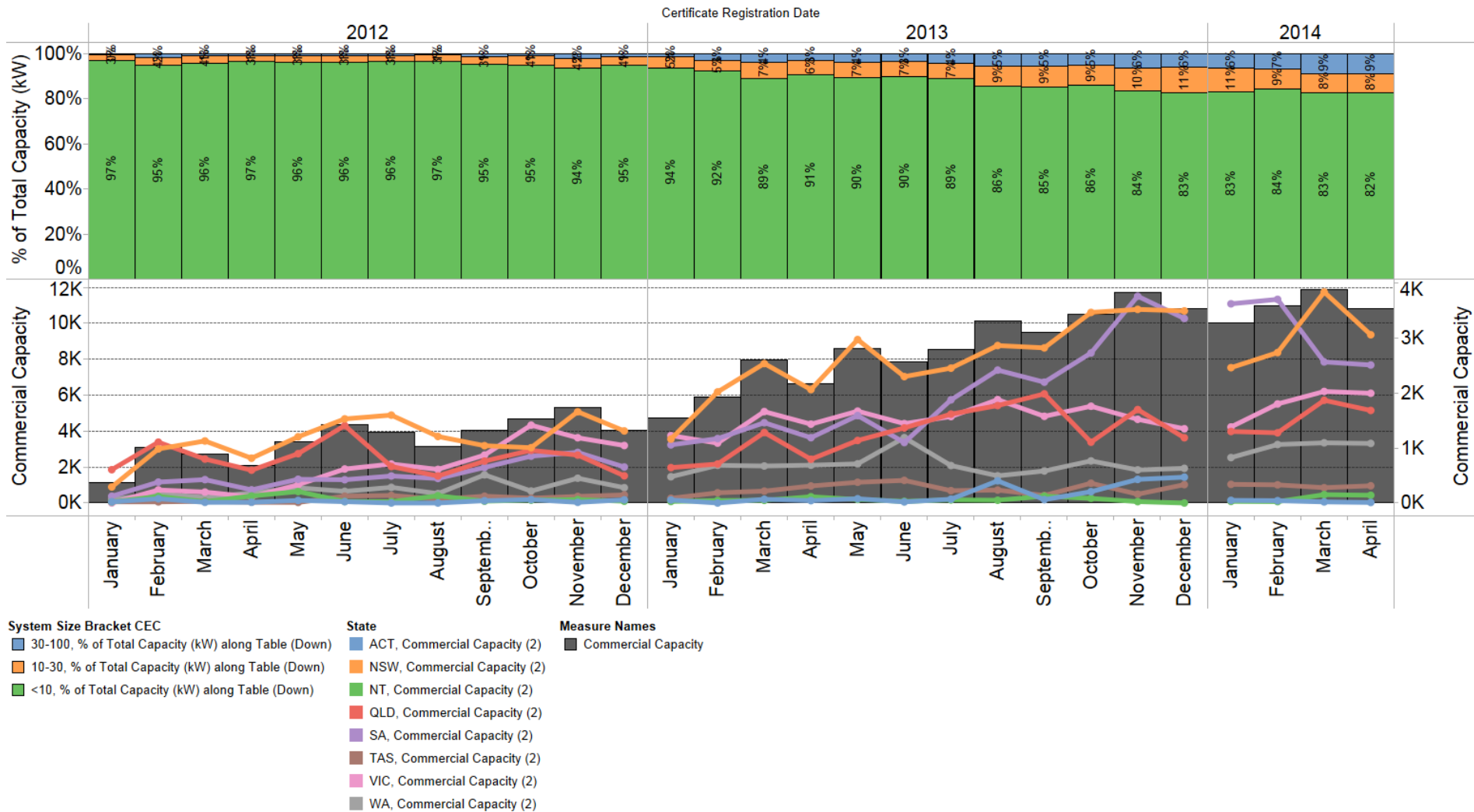




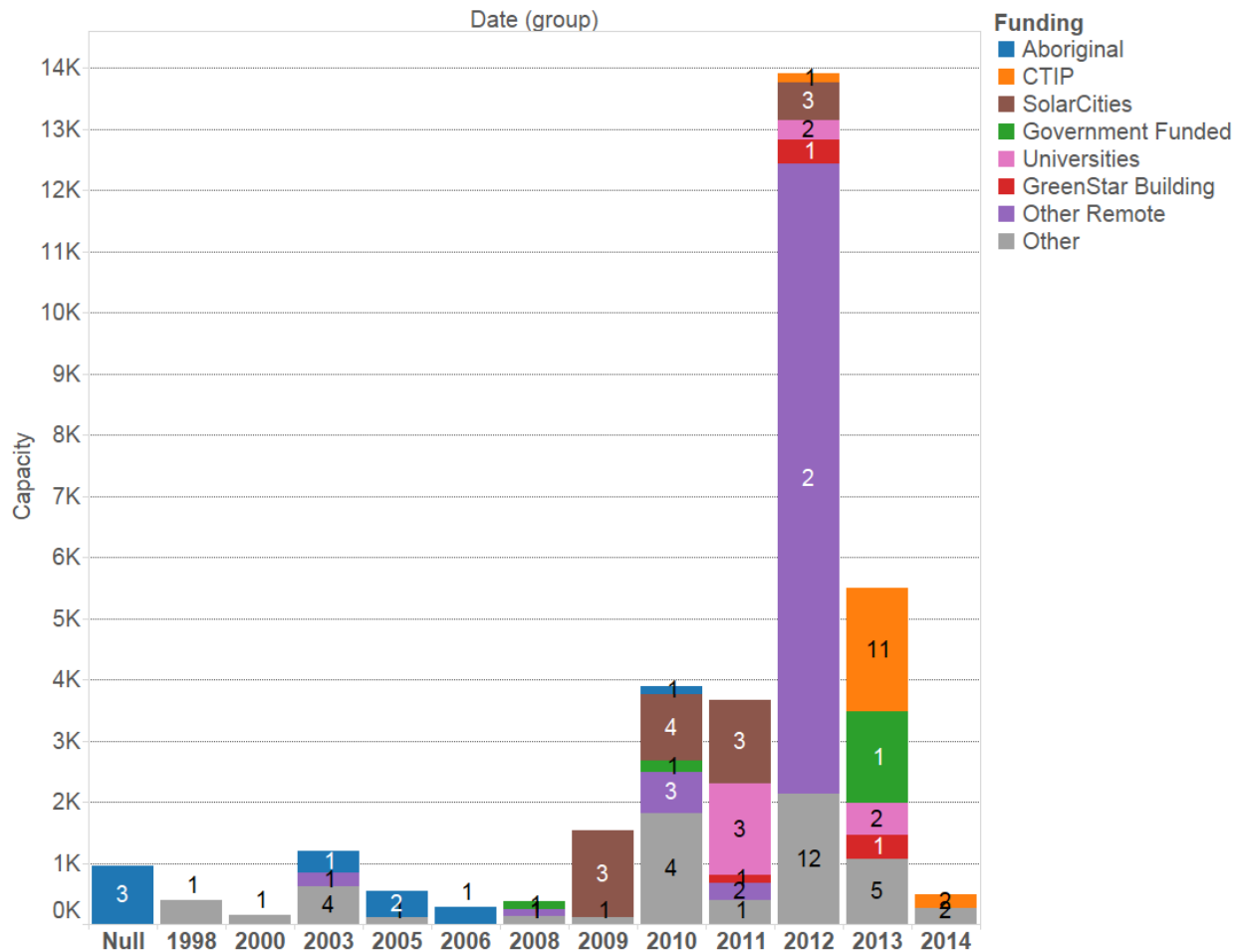
# UNDERSTANDING THE MARKET



# Trends in Commercial PV (10-100kW)



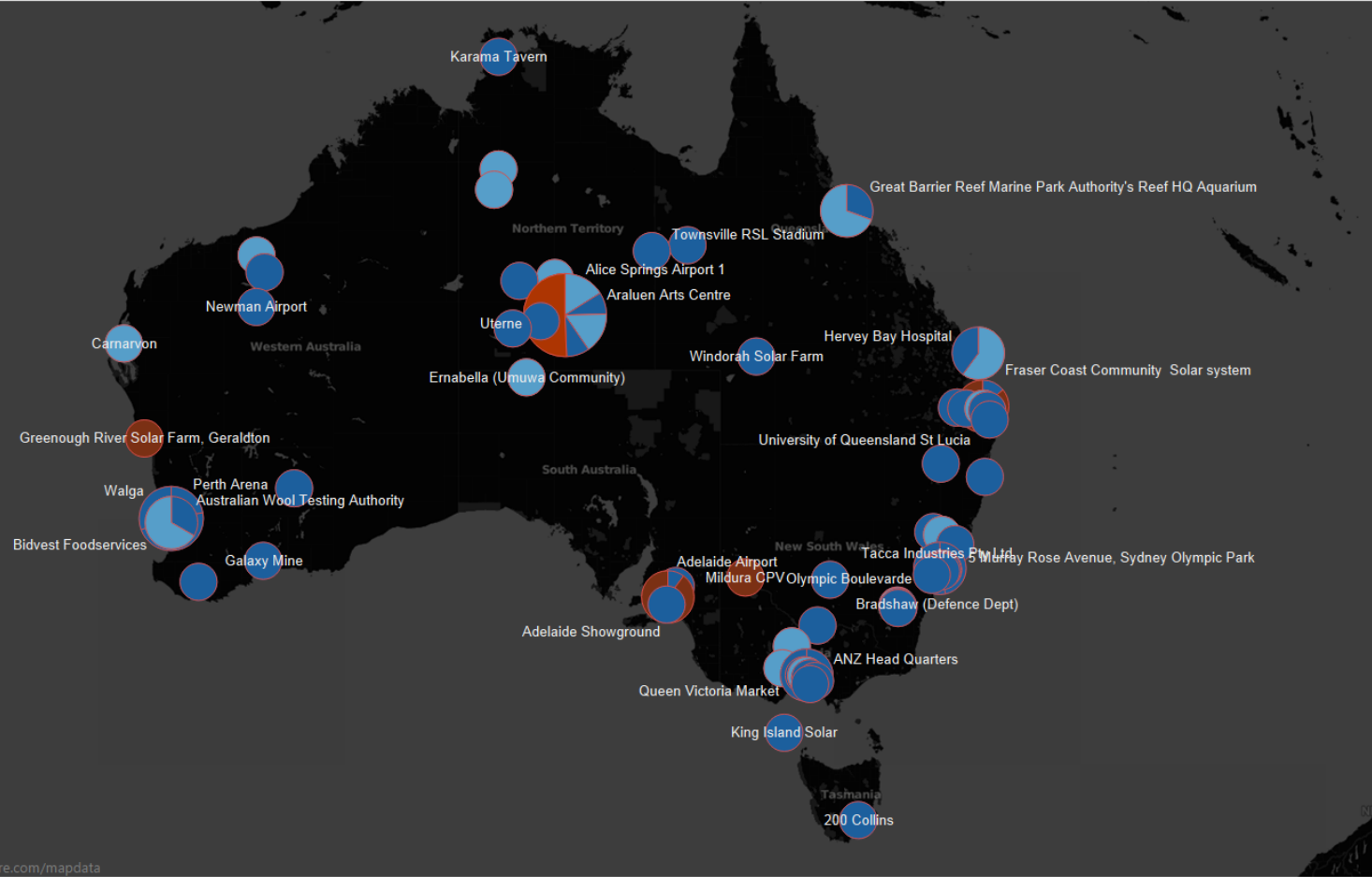
# How big is the accessible market?



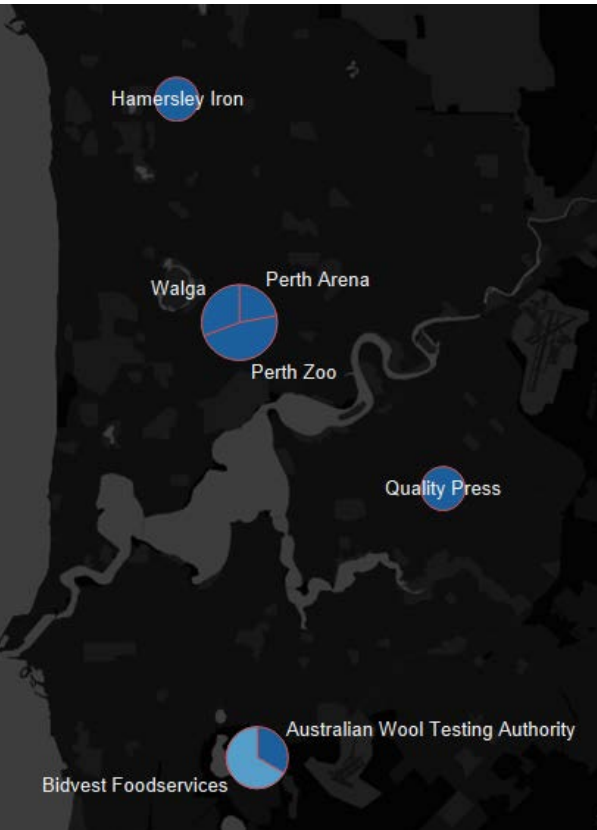


# FINDING THE CUSTOMERS

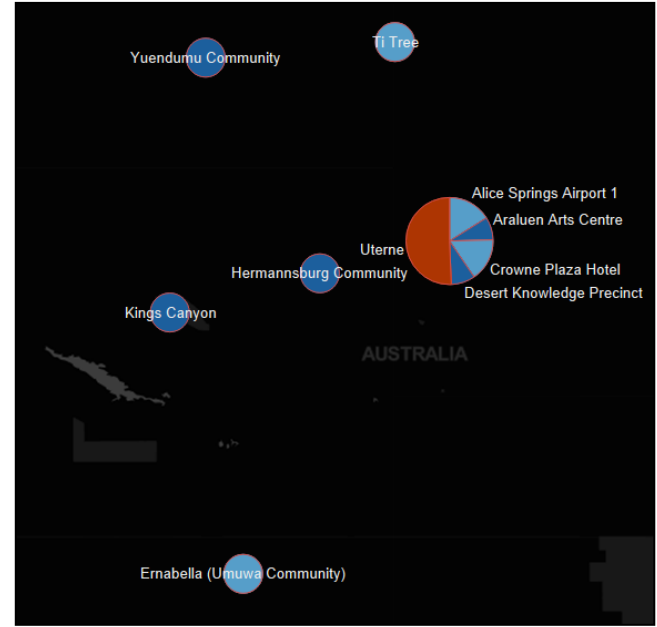
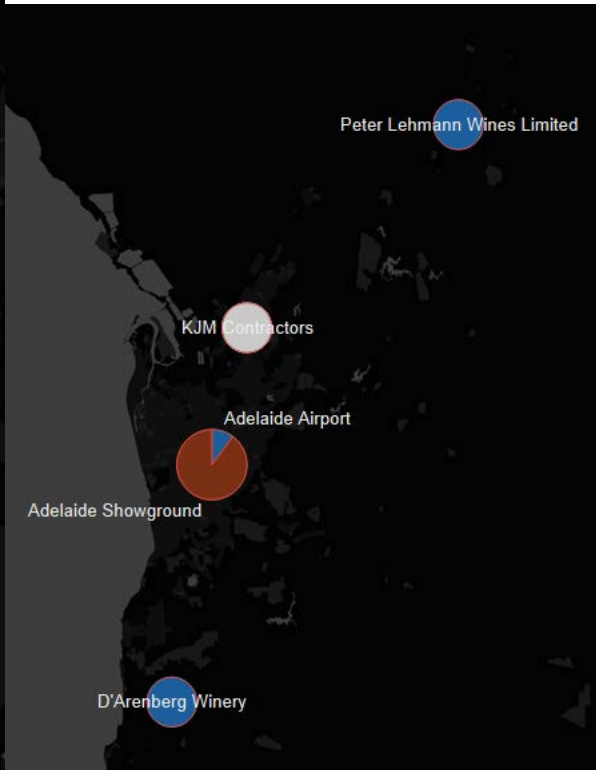
# Locations of > 100kW



# Perth

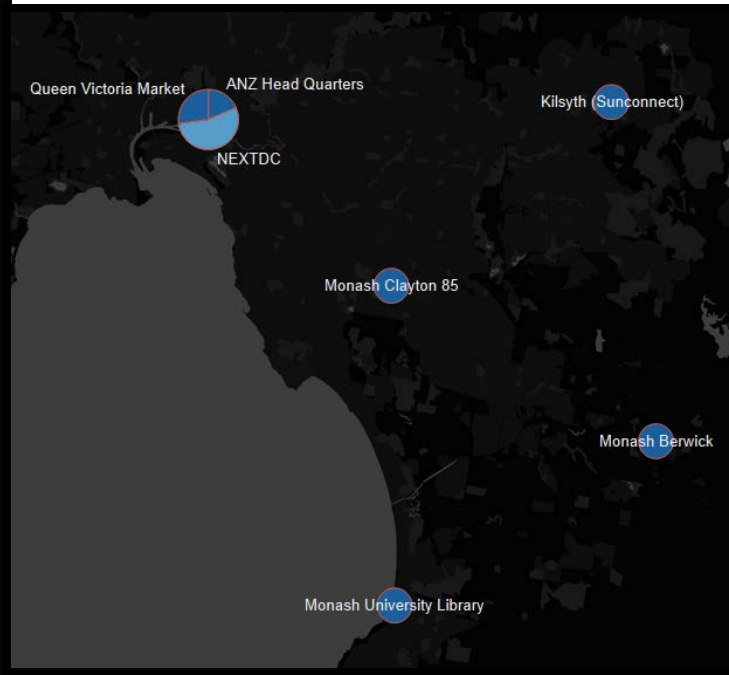


# Adelaide

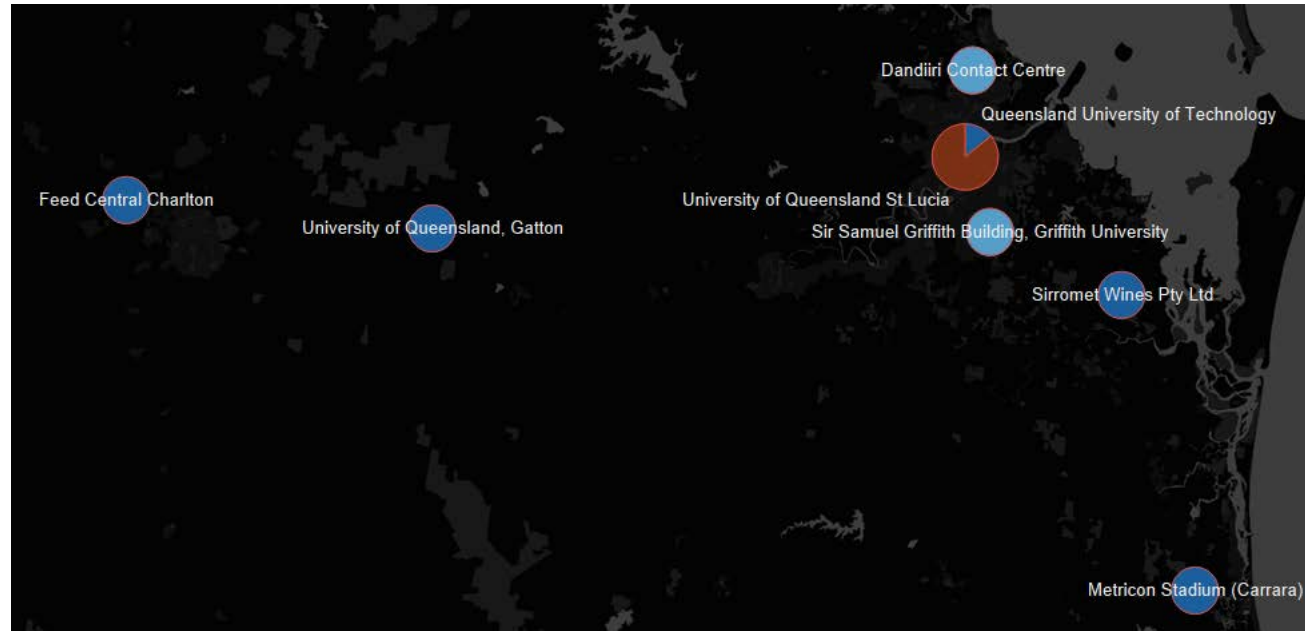


# Alice Springs

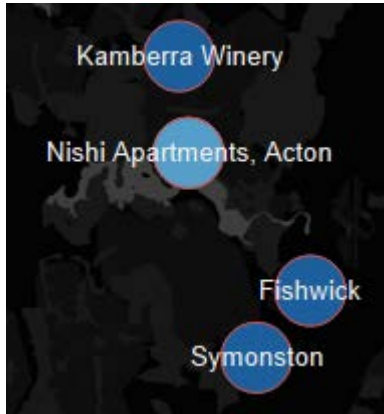
# Melbourne



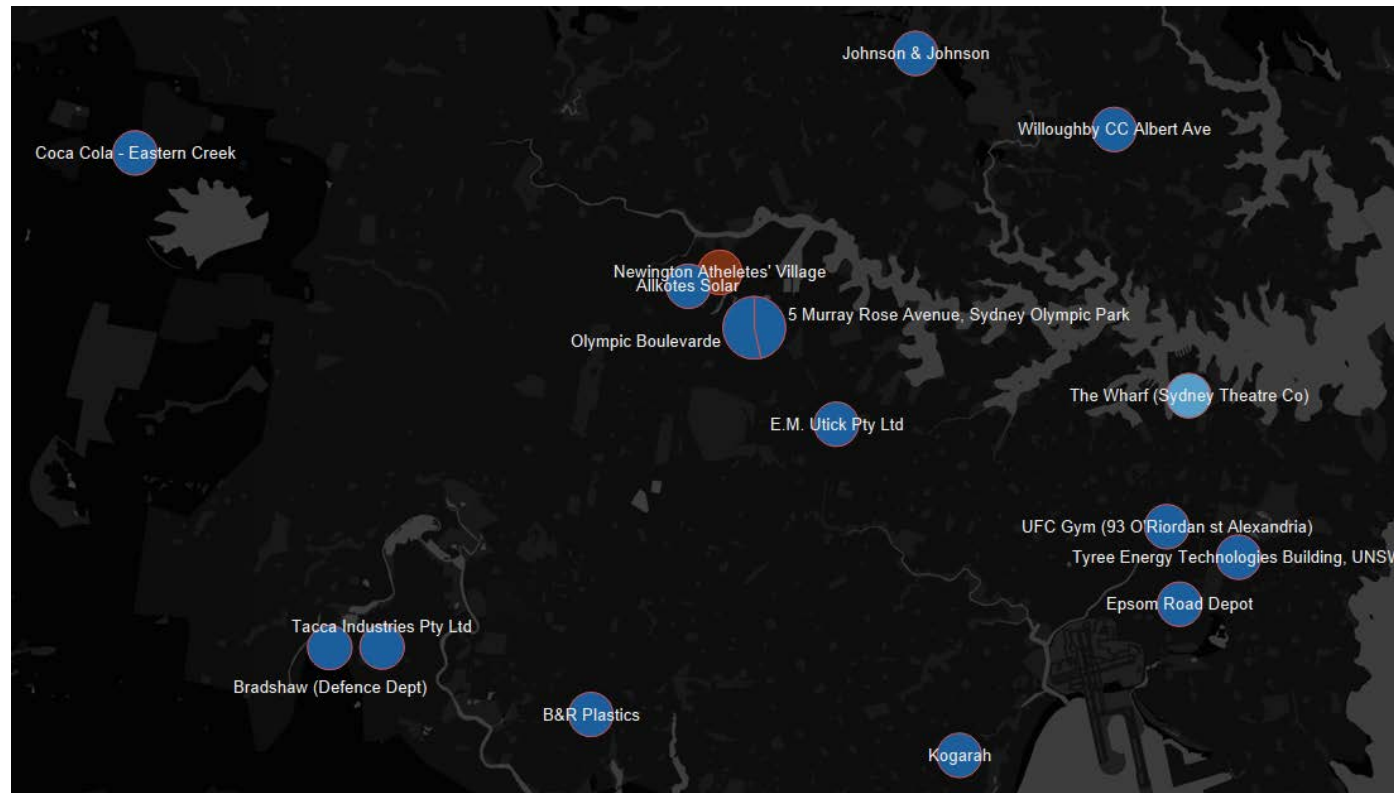
## Brisbane



## Canberra



## Sydney

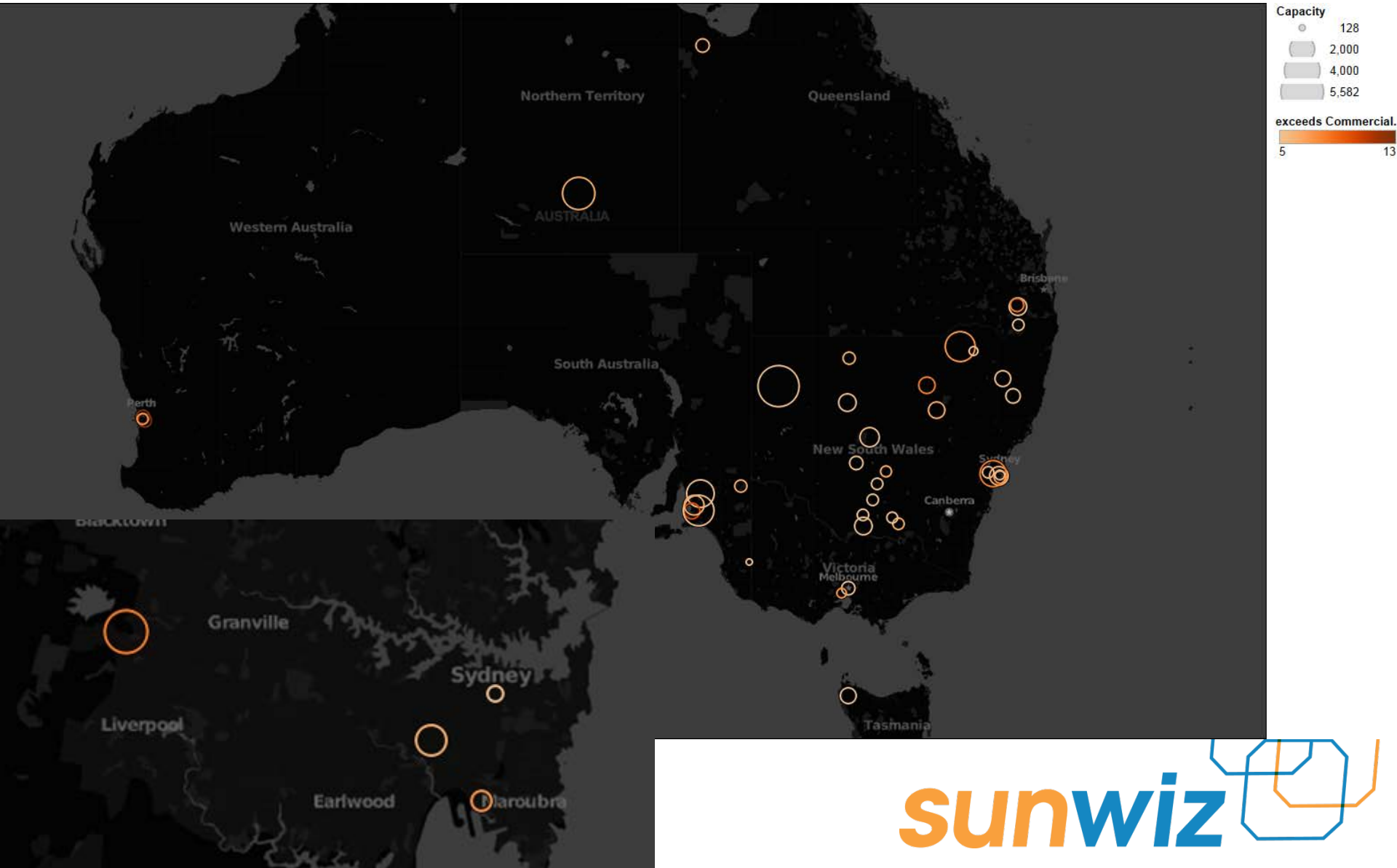


# Where are the customers?

- Government programs
- Remote areas
- Green Buildings
- One-off projects
- Western Sydney
- In the sub-100kW range



# >8kW avg, >4months





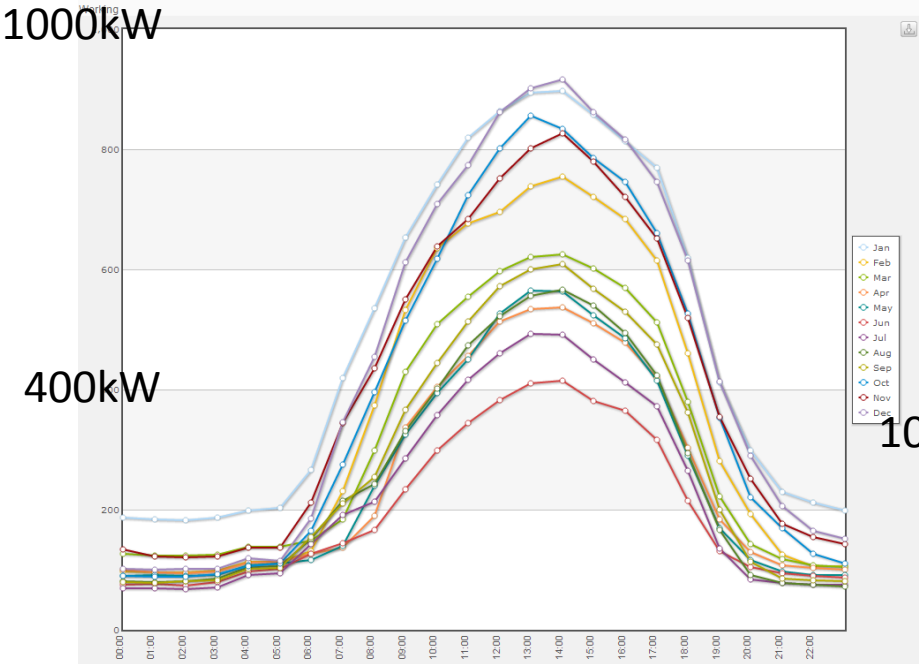
# SIZING THE SYSTEM

# Sizing the System

## Working Days

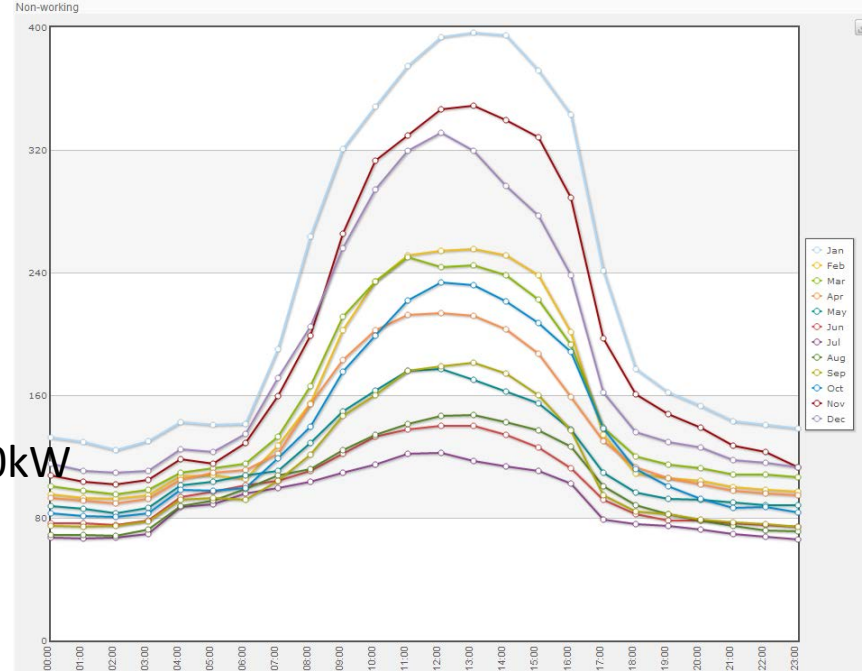
InBuilt - Racecourse 1 (QLD)

Edit Load Profile without scaling



## Non-Working Days

400kW



100kW

Exclusive export ranges to follow



# Bundled vs Unbundled Bills

## Bundled

- No Demand Charge
- Offset 23-30c/kWh (lower & upper quartiles)
- Can afford to export
- <80-250kWh/day
- Offset 50-75% of Consumption:
  - ~31 kW system
- IRR 24%

## Unbundled

- Demand Charged Separately
- Offset 13-21c/kWh (lowest in QLD, highest in NSW)
- Can't afford to export
- 440-1400+ kWh/day
- Offset 25-45% of consumption
  - ~50kW system
- IRR 14%

Exclusive payback ranges to follow



© 2005 Ted Goff www.newslettercartoons.com



“Someone calling themselves a customer says they want something called service.”

**LGC,  
NETWORK CONNECTION,  
OTHER CONSIDERATIONS**



# LGC considerations

- LGC creation based on annual generation
- Registered Owner and Power Station with CER
- Cost of Metering and Reading Meter
- Value of LGCs currently \$4500/100kW/year
- Uncertainty of LGC future & price
  - RET Review... and the hold-off



# Network Connection

- New Chapter 5 applies from October to >30kW in QLD & VIC. Process should be more simple and transparent
- Multi-function relay invariably required
  - Commissioning \$\$\$
- Export control may be needed
  - Some relays switch on/off banks of inverters – stage carefully to avoid losses
  - Some speak to inverters (e.g. SMA cluster controller), which maximises revenue
- SunWiz can help



# Other considerations:

## Retail license exemption

- NSW, ACT, SA: NECF – contact AER for retailer exemption
- TAS: NECF but contact Office of Tasmanian Economic Regulator
- QLD: unnecessary for now(?), contact DEWS
- VIC: very difficult
- WA: may not be needed, contact Economic Regulatory Authority



# Other considerations

- Who pays for studies?
  - Structural engineering assessment
- Performance guarantee
- Maintenance requirements
- Commissioning

Actually an explosion from domestic gas





**Skyreach**  
the only way up

FOR HIRE 1800 45 71 45

FOR HIRE 1800 45 71 45

RENTALS  
1800 45 71 45



# The Tendering Process

Solar2014



# Competitive

I reckon \$1/W will win it for me

Geez, how am I going to beat these Cowboyz?

What's that bright thing in the sky?

You've got to be F\*\*\*en kidding me



Which Council are we visiting tomorrow?

I won the last one just by wearing a tie

**sunwiz**



# Usual Suspects?

## - The tender experts

- ACT Hedley Beare Centre:
  - EAM Operations Pty Ltd
  - Ingenero Pty Ltd
  - Photon Energy Australia Pty Ltd
  - RF Industries Pty Ltd
  - Solgen Energy Pty Ltd
  - Zhenfa Energy Projects Pty Ltd
- Casuarina Library (NT)
  - Awarded to: Peak Output Installation Pty Ltd
  - Amount: \$262,000.00
  - Ogden Electrical
  - Solgen Energy
  - Delta Electrics NT Pty Ltd
  - Johnny Cool Darwin NT Pty Ltd
  - PF & SM Shelley Pty Ltd
  - Country Solar NT
  - Hazy Enterprises Pty Ltd
  - Electric NT Pty Ltd
- Solar Sports Centre, Bright – New Generation Solar \$42k (20-40kW)
- D&C Solar Hybrid 2013 – Mpower \$350k
- Eurobodalla (NSW) 2013 - Horizons Solar Technologies
- Renmark Paringa Council (SA) 2013 Yates Electrical Services \$50k
- Fairfield Council (2013) \$250k
  - Awarded to: HORIZON SOLAR TECHNOLOGIES
  - Blue Green Engineering
  - Solar Bright Pty Ltd
  - Solgen Energy Pty Ltd
  - Thomas & Coffey Ltd
  - Nicholls Solar
  - Solar Technology Australia
  - PLP Solar
  - Commsolar
  - RF Industries
  - Horizon Solar Technologies
  - Jarcon Pty Ltd T/A Harelec Services
  - Modern Interiors
  - Enviro Renew T/A Beacon Solar



# Onerous

- Site Inspection
- Forms
- Addendum
- Extra requirements
- OH&S
- ISO accreditation



# Is it worth it?



- Identify what's missing from your commercial proposition
- Encounter eye-opening situations
- Good for the resume (but past commercial experience necessary)

# Example Tenders

- Hornsby Library (100kW), Epping Library (May 2014)
- Bathurst Water Filtration 50kW (May 2014)
- Ballina Sewage 100-200kW (May 2014)
- Byron Sewage 50kW (May 2014)
- Newcastle War memorial (May 2014)
- Colac Council & Fitness Centre (May 2014)
- Hornsby Leisure Centre (May 2014)
- ACT Govt Hedley Beare Centre (May 2014)
- Royal Australian Mint (May 2014)
- Alice Springs Research 20kW (Mar 2014)
- Charles Sturt Uni (Wagga) – 850kW (Mar 2014)
- Lismore Council (Mar 2014)
- Canning 4x30kW (Feb 2014)
- Horizon Power 2MW inc Storage (Mar 2014) EOI



# Example Winners

- Stethlow Research Alice Springs 20kW - \$50k, Ogden Power (\$2.5/W)
- Corowa Shire Council (Mar 2014) 16 sites 400kW, \$693k Harelec (\$1.73/W)
- Human Services Tas (Dec 2013) – 300kW across 10 systems; \$345k I Want Energy (\$1.15/W)
- Brush Farm Corrective Academy (July 2013) 85kW - \$350k Zhenfa (\$4.1/W)
- Campbelltown City Council (Sep 2012) – 100kW \$450k Horizon Solar (\$4.5/W)
- NICTA ATP Sydney (Oct 2011) – 62kW \$318k ecoKinetics (\$5.1/W)



# Resources

- <http://www.solarchoice.net.au/commercial/commercial-solar-power-tenders-management>
- <http://www2.tenderlink.com/>



# SunWiz Exclusive Answers:

1. How do my system prices compare with my competitors?
2. What system price can my client afford given their bill?
3. How can I demonstrate my prices are reasonable?
4. How does my finance offering compare to my competitors?
5. Which state should I target for profitable commercial PV?
6. What electricity prices am I up against?
7. What paybacks and IRR can I offer an unknown client?
8. Rule of thumb: export volumes, consumption patterns
9. (and much more)

DIY Financial Calculator: [www.PVsell.com.au](http://www.PVsell.com.au)

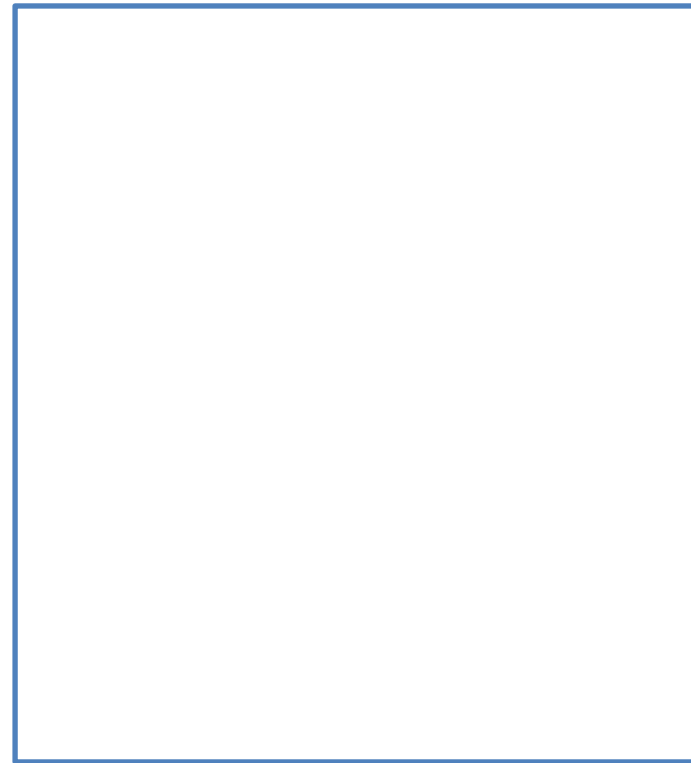
SunWiz SolarROI for you: \$225 ex GST



# SunWiz Exclusive Analysis

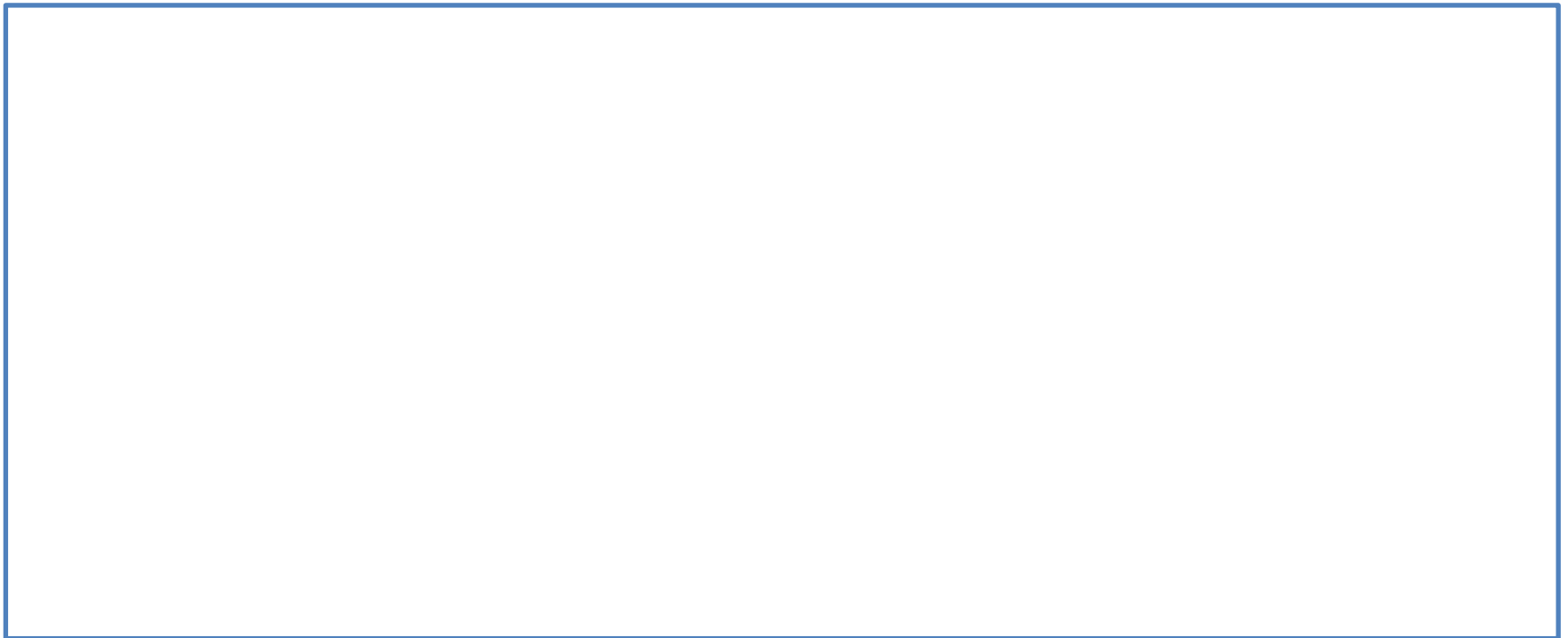
- System Pricing
- Typical O&M expenditure
- Use of Finance
- Typical Electricity Prices
- Paybacks & IRR
- Typical relationships between IRR & Export, offset tariff, \$/W
- Direction of Panels
- LCOE
- Electricity Consumption and Tariffs

Evolution of System Pricing



## Electricity Price Comparison

## Typical Tariff Breakdown



E

Un

**Payback expectations**

**Export rule of thumb**



# Galaxy of results



# Register your interest for a 50% discount

- Due for release in late May
- Over 40 graphs, >12 dashboards, >3000 datapoints
- RRP \$1000 ex GST
- 50% discount if you email [warwick@sunwiz.com.au](mailto:warwick@sunwiz.com.au) requesting BigPVwisdom when released.

