Residential Solar Panel Installations 101

What You Need to Know
Quality, Safety, and Long-Term Value

Presented by: Andy Leadbeatter, Reclaim Solar Energy
Location: Edgeworth, NSW
Date: 31/05/2025

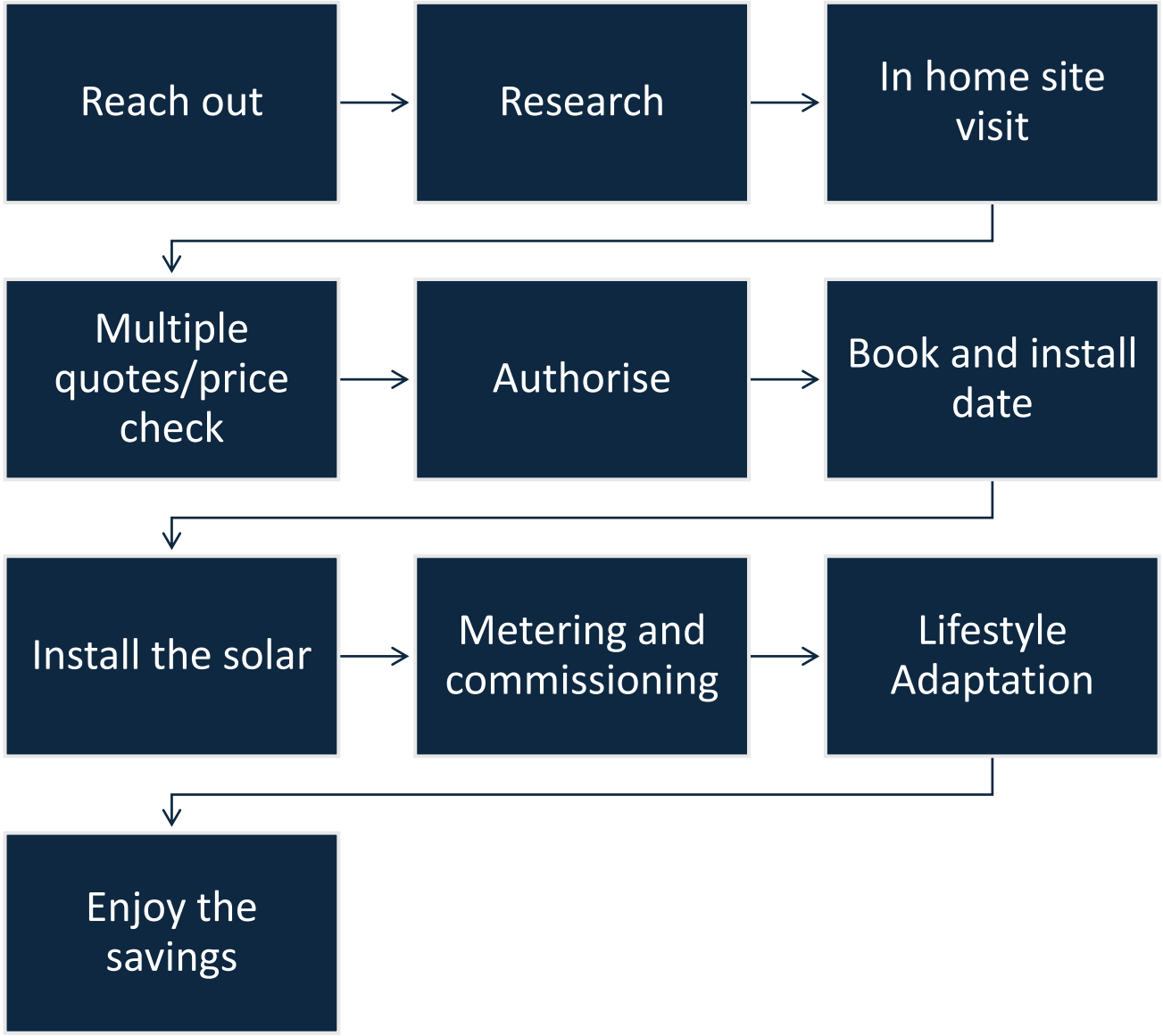
A little bit about me… mostly work related

- Qualifications Electrical, On Grid and Off Grid solar and battery design and installations
- 15 years in the renewables industry
- 7 years in business as MD of Reclaim Solar Energy
- I have worked in a management capacity in Installations, Service and Sales across 2 different companies
- At Reclaim Solar Energy we now have a team of 16 professionals working in and out of our Edgeworth Factory.
- We complete 2-3 installs per day on average and a few batteries per week too which is nicely on our inhouse installer limit.
- Local business with key values placed on Family, Trust and Results
- Father of 3 beautiful kids and my rock is my wife Susie we have been married for 14 amazing years.

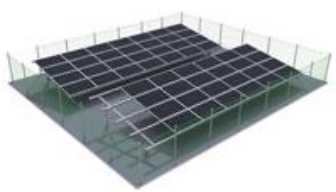
Agenda for today

1. The process of a solar panel installation
2. Practical applications around solar panels installations
3. The Good the Bad and the Ugly of solar panel installations
4. The balance between doing your homework and trust your solar partner

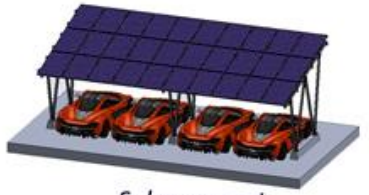
The process of a solar panel installation

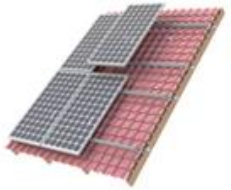


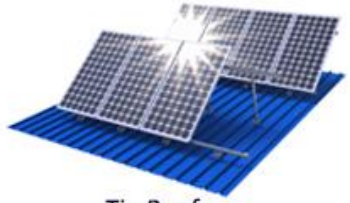
Practical applications around solar panels installations


ground mounting

Wire Mesh Fence


Solar carport


Pitch Tile


Tin Roof

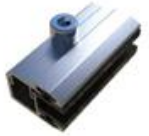
Flat Concrete Roof

tin roof hook

mid clamp

end clamp

thin mid clmap


mid end clamp

tile hook

cable clip

grounding clip

grounding lug

R02 rail

L foot

hanger bolt

trapezoid hook

COB hook

TRK hook

Roof Types - Metal Roofs

Types: Corrugated Iron, Klip-lok

Mounting Methods: Fixed with roof screws or clamped (non-penetrative)

Key Considerations:

- Corrosion protection
- Wind load compliance
- Ensuring water-tight integrity

Roof Types - Tiled Roofs

Types: Concrete and Terracotta Tiles

Mounting Method: Tile hooks under tiles, tiles trimmed or lifted as needed

Risks if Done Poorly:

- Cracked tiles
- Roof leaks
- Poor anchor security

Roof Types - Flat Roofs

Mounting Systems: Tilt frames or weighted (ballast) systems

Challenges:

- Correct angle for performance
- Avoiding roof membrane damage
- Managing stormwater run-off
- Self Cleaning/build up of dirt

Other Roof Types & Custom Solutions

Examples: Slate, shingle, commercial steel decks

Special Requirements:

- Engineering review
- Specialist fixings
- Council compliance (where applicable)

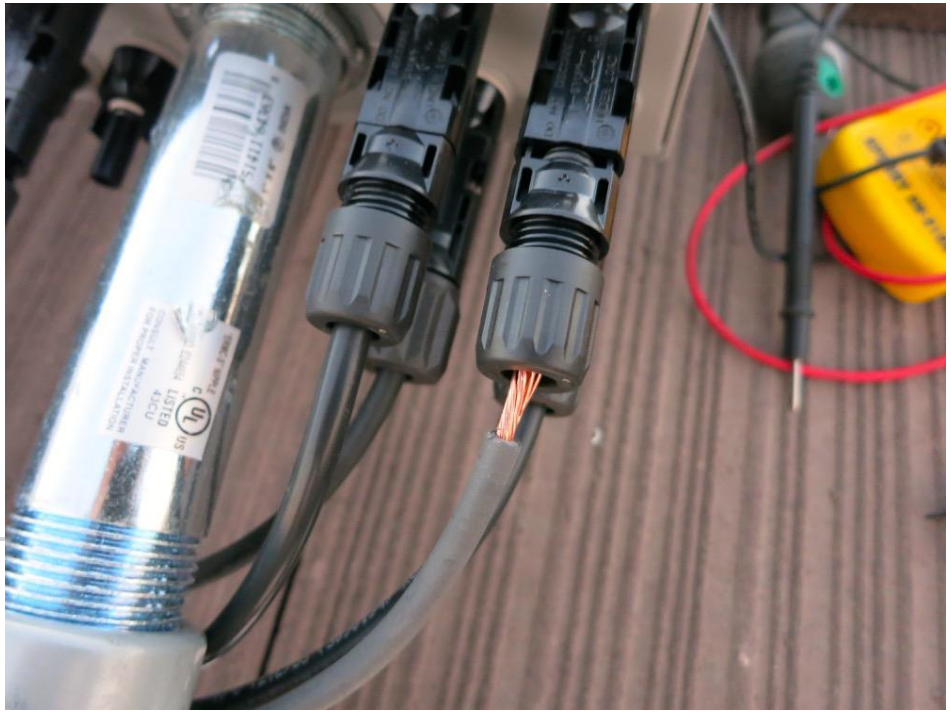
A FILM BY SERGIO LEONE
THE GOOD
THE BAD
AND
THE UGLY

The Good

- Serviceability
- Safety First
- Compliant
- Relaxed look
- Cemeterial

The Bad

- No Safety
- No Common sense
- No serviceability
- No Compliance



The Ugly

Pitfalls of Cheap Installations

Common Shortcuts:

- Substandard Surface cabling
- Poor roof penetrations
- Cheap inverters
- Inverters in the Sun
- Surplus rail
- No Site inspection

Consequences:

- Roof leaks
- Fire hazards
- Voided warranties
- Poor system performance

Tricks and traps for scams

- Pushy sales tactics
- Contracts on the spot
- No time to read Terms and Conditions
- No design/lifestyle consultation
- Door to Door sales
- No uniform
- Buy now pay later schemes tied to your retailer

The True Cost of “Cheap”

Upfront vs Lifetime Costs:

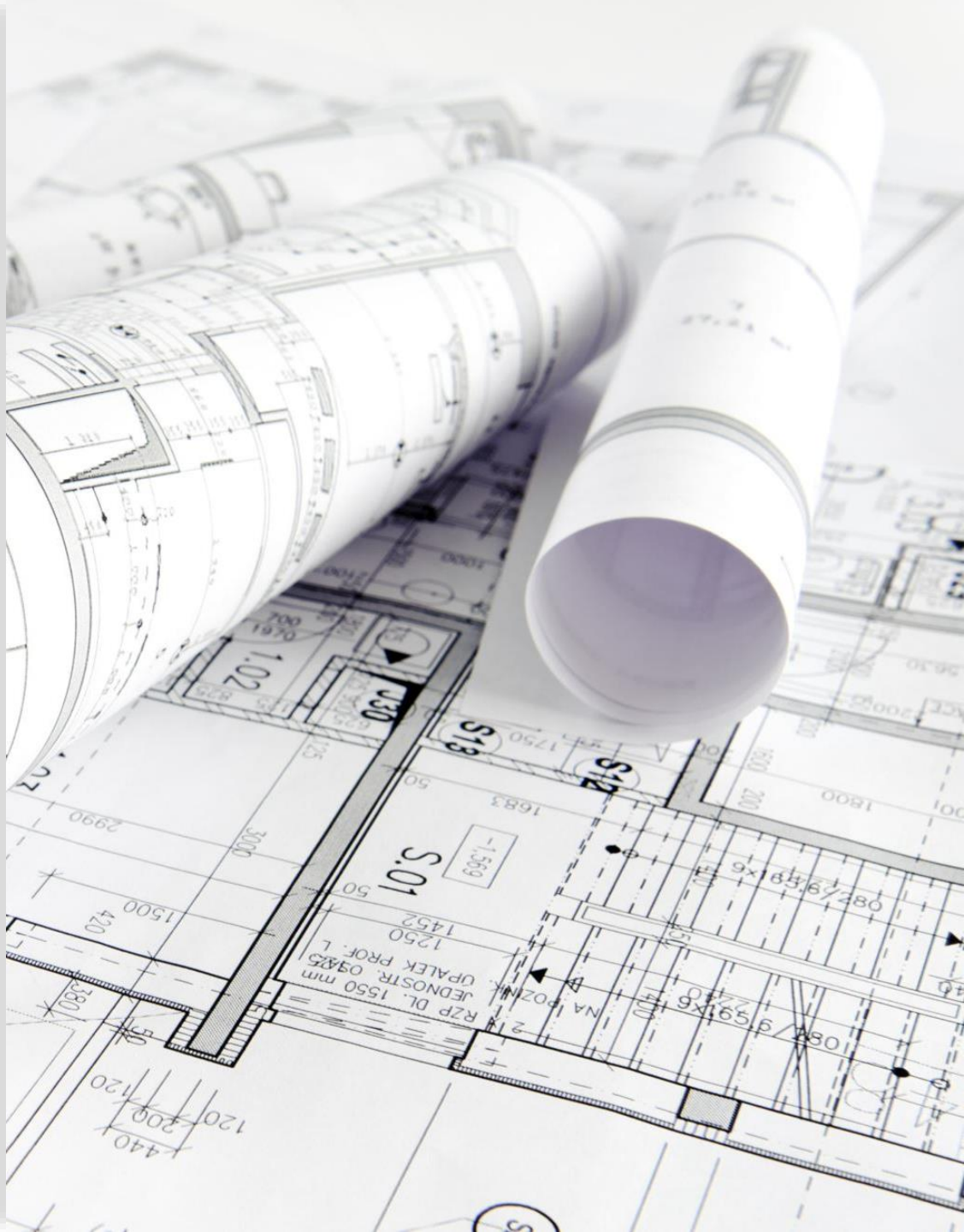
- Cheap install: lower initial cost, high maintenance
- Quality install: peace of mind, better performance

Real Risks:

- Repairs may exceed initial savings
- Insurance may not cover non-compliant systems

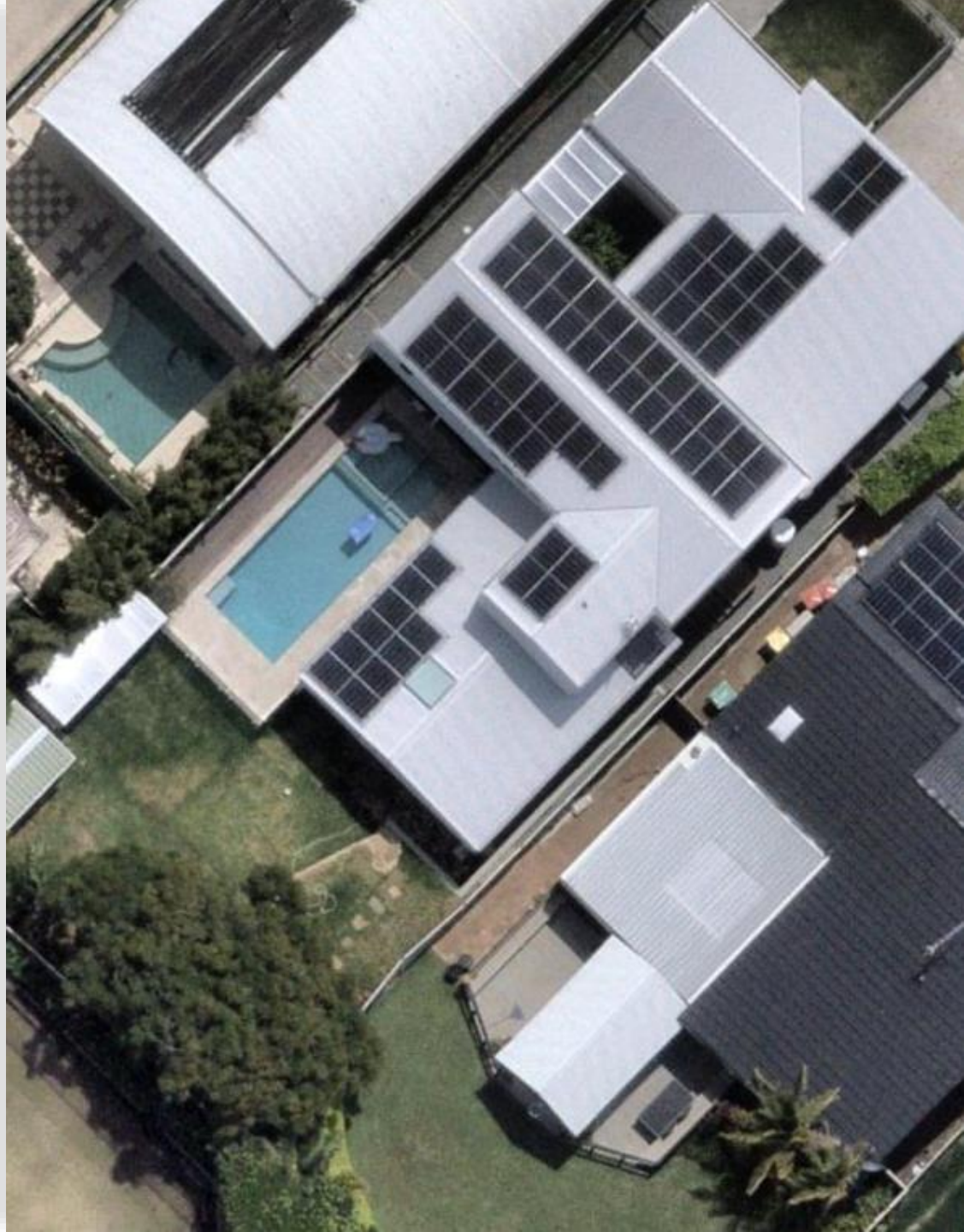
The importance of a site visit

- Face to Face gives you a gut feel for the supplier
- Questions about usage and education can happen more accurately
- All elements can be considered including knowing all costs
- Designs can be completed with confidence
- Inverter and battery locations can be discussed openly
- All concerns can be addressed



Solar Design 101

- Accurate
- Considered
- Compliant



The Importance of After-Sales Service

Ongoing Support Includes:

- System monitoring and alerts
- Troubleshooting and repairs
- Warranty claims management

- **Why It Matters:**
- Maximises returns
- Ensures safety
- Keeps system working at peak efficiency

Choosing a Quality Installer

Look For:

- CEC Accreditation
- Local presence and experience
- Clear, itemised quotes
- Long-term support

Avoid:

- Pushy salespeople
- No local contact point
- Unwillingness to explain the process

Conclusion

Key Takeaways:

- Every roof is different: trust qualified installers
- Cheap jobs often cost more in the end
- After-sales service is just as important as installation

Final Message:
Invest in quality solar with a local company that will support you beyond the install.

Q&A

Keep in touch with Reclaim Solar Energy

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Book your solar consultation today!