

Dear Client

We serve a 2-day Solar PV Installation course is endorsed by AREP and presented by Trevor Tappan (MIE) & facilitator. Trevor has installed numerous solar PV systems and can address the issues faced by electricians on both residential and commercial scale solar systems.

A Course presented by electricians, for electricians that comes complete with AREP P4 certification which is acknowledged with all municipalities Countrywide and most major financial institutions.

1. General overview and background of Solar technology
 - a. Electrical Installation Regulations
 - b. Construction regulations
 - i. Introduction to building codes.
 - ii. Who may legally install and certify alternative energy installations on structures. (CoC's)
 - iii. What are the implication of non-compliance to Building Regulations.
 - iv. Structural stability of structures:
 1. Design work life
 2. Understanding loadings (Dead+LiveLoads)
 3. Understanding loadings (Wind Loads)
 4. Structural designs (Wood and Steel)
 - v. Fire protection of structures
 - vi. Maintenance of structures
 1. Concrete tiled roofs
 2. Steel Sheeted roofs
 - vii. Summary
2. PV accessories
3. Tools needed for installation
4. Test equipment needed
5. Monitoring systems and load establishment
6. Different power systems
7. Electrical principles & how solar works
 - a. Ohm's law
 - b. Connections in series and parallel
 - c. Understanding specifications & datasheets
 - d. How not to install
 - e. Solar panels explained
 - f. Sun hours explained
8. Designing and installation of solar PV systems using the following equipment
 - a. Solar Panels, sizing, types, connections, mountings etc
 - b. Mounting Structure
 - c. Inverters types, sizing, fails etc
 - d. String and combiner boxes
 - e. Monitoring systems
 - f. Charge controller sizing and operation
 - g. Cable and fuse sizing
 - h. Batteries:
 - i. sizing, cycles, DOD, SOC, Curves, charging etc

Managing Director: TJ Tappan (Jnr);



- ii. Peukerts law
- iii. What kills batteries
- i. Earthing and bonding
- j. Meters and miscellaneous

4. Online test

Best Regards
Trevor Tappan
082 851 2771

A handwritten signature in black ink, appearing to read "T. Tappan", is positioned below the typed name.

Managing Director: TJ Tappan (Jnr);