COMMODORE
OFF GRID & SOLAR PUMPING SPECIALISTS

GLOSSARY OF TERMS

Term	Definition
Kilowatt (kW) + Watt	The standard unit of power by which energy is dissipated A kilowatt is the measure of 1000W (1kW = 1000W).
Kilowatt Hour (kWh)	The unit of energy equal to one kilowatt of power for an hour.
Ampere (A)	The measure of electrical current. Ampere's can be converted to kW by multiplying Ampere's (A) by Volt's (V). For example, a 3A fridge, running at 240V (standard household appliances run at 240V) would equal 720W. 3A x 240V = 720W.
Volt (V)	The measure of potential difference in an electrical circuit. An Off Grid System will either be 12V, 24V or 48V (48V is recommend and is most common).
Kilovolt Ampere (kVA)	In basic terms, is the measure of apparent power without considering the power factor/efficiency of an an object
Inverter Charger	A critical Off Grid component which converts DC power to AC power (Inverter) to ensure solar/battery power can be used by normal household appliances. The charger allows you to use AC power to charge the Off Grid System when the batteries are also.
MPPT Charge Controller	An MPPT charge controller monitors regulates the solar charge and converts the solar voltage to the battery voltage to ensure your batteries are safely charged.
Off Grid Battery/Low Voltage Battery	An Off Grid Battery such as a Pylontech US5000B or Sun-Torque 5kWh is a DC Battery that is suitable for Off Grid/genuine backup power solutions. They can be charged by Solar, Generator or Mains.
Battery Cycle Life	Is known as the number of charge and discharge cycles that a battery can complete before losing performance. For example, Pylontech US3000C batteries are rated to 6000 cycles to 80% depth of discharge. The expected battery cycle life is over 15 years.
Lithium Iron Phosphate Battery	Is a type of lithium battery that uses Lithium Iron Phosphate as the primary material. Lithium Iron Phosphate is used in many electric vehicles and high quality Off Grid Batteries because of its low toxicity, high safety, long cycle life and low cost.

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AC Coupled Solar	Refers to Solar which has been wired into an AC Inverter such as a Fronius or Goodwe Inverter rather than an MPPT Charge Controller. AC Coupled Solar is most efficient if most of your power usage is during the day.
DC Coupled Solar	Refers to Solar which has been wired into an MPPT Charge Controller such as a 150/60 or 450/100 Victron SmartSolar. DC Coupled Solar is most efficient when charging your batteries.
Remote Management Portal	Refers to Off Grid specific software which manages all of an Off Grid Systems settings and configurations. Either Commodore, our you can access this on your laptop, or phone if you have an internet connection.
Clean Energy Council Accredited Retailer	Refers to the accreditation of an organisation through the Clean Energy Council for designing and selling solar and storage systems. This is regarded as a high level industry accreditation which Commodore has.
Water-Cooled Generator	Is a Generator that uses a coolant and radiator system similar to that in a car, to keep the temperature of the internal parts down. Water-Cooled Generators have proven to be a top-class Off Grid solution (when automatic start is included) because of their significant reliability. Can run 24/7 if required.
Air-Cooled Generator	Is a Generator that uses air circulation to bring the temperature down. Air-Cooled Generators are perfect for small/medium Off-Grid Systems with moderate use because they can only run for a maximum of 6 hours at a time.
Automatic Start Generator	Also known as Off Grid Generators, Automatic Start Generators can be automatically started when configured by a system monitoring/configuration device such as the Victron Cerbo when your batteries are low. Eg, the Generator can be programmed to automatically start when the batteries are at 30% charge.
Small Scale Technology Certificate (STC)	STC's are awarded with the installation of Clean Energy Council accredited Solar Panels when installed by a Clean Energy Council Installer. STC's act as a final incentive in an Off Grid System.