

Island Energy Systems provides independent electrical solutions to customers worldwide. We supply off-grid (standalone) or grid-connected (backup power) systems to provide clean, reliable electricity for nearly any application.

Whether you need power for your remote cabin, or enough solar electricity to run an industrial shop, school, or island eco-resort, we can design a package to fit your needs.

www.islandenergysystems.com



Island Energy System on St. Kitts, West Indies

#### **Independent Electrical Solutions**

Island Energy Systems LLC sells complete solar electric system packages designed for installation by do-it-yourselfers and local contractors. We integrate high quality components from leading manufacturers into whole systems based around a central 'nexus', an AC/DC power conditioning center and circuit breaker enclosure.

Our systems range from a single-panel system for small DC loads to industrial-grade AC systems containing dozens of panels and banks of batteries capable of storing hundreds of kWh of electric energy.

We specialize in complete turnkey packages that include solar panels, racks, batteries and the prewired 'nexus'. Additionally we can supply you with wire, conduit and all the other parts you'll need for a high quality, code compliant system. Our systems can be crated or containerized for shipping to any destination worldwide.

With your system you'll receive detailed installation instructions, wiring diagrams and construction drawings. Additionally, email and phone support from our experienced installers and off-grid specialists will help ensure for your successful installation and a long productive life of service from your *Island Energy System*.



SolarNexus $^{\text{TM}}$  by *Island Energy Systems*.



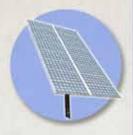
Grid-tied PV system on Orcas Island, WA

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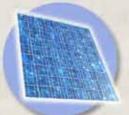
An Island Energy System ready for shipment.

## **ELEMENTS OF AN ISLAND ENERGY SYSTEM**



#### PV ARRAY

Photovoltaic (PV) arrays are roof, ground or pole mounted. PV panels should be mounted in the sunniest location available. Properly installed arrays will produce clean, reliable power for decades with minimal maintenance.



#### LOADS

Good system design starts with using the most efficient lights and appliances possible. Lighting should be compact fluorescent (CFL) or light emitting diodes (LED). High power loads such as motors, microwave ovens and pumps can be operated but higher energy consumers such as hot water tanks, air conditioners and space heaters should be avoided.



### AC SOURCES

Many systems will utilize a supplemental charging source such as a gas or diesel generator. If your site has 'grid' or 'mains' power from a utility, an Island Energy System can provide backup power during blackouts and reduce your utility bills by providing an alternative source of energy.



SolarNexus™











#### NEXUS

The NEXUS is the heart of an *Island Energy system*. The NEXUS is a central AC/DC wiring hub and interconnection point for pre-wired power electronics such as inverter/chargers, PV charge controllers, DC power supplies and load controllers.



# BATTERIES

Batteries are typically deep-cycle lead acid cells arranged in 12, 24 or 48 Volt combinations. Flooded batteries are the best value but require watering and ventilated enclosures. Sealed batteries are maintenance free but are more expensive and vulnerable to damage from overcharging.