

Difficult Site Challenges

Deployment of a remote site photovoltaic (PV) system can be a challenging prospect. Deployment involves site preparation, transportation of materials and labor, and the installation and commissioning of the system. Often this is done in poor weather conditions and in physical conditions where there is limited space for vehicles, equipment and material staging, and movement of equipment and materials at the site.

These factors are challenging enough for easily reached locations. At sites not accessible by land vehicle, the factors listed above are much more demanding.

The site may be accessible only by air, meaning all equipment must be packaged and transported by helicopter. The site may be rugged and rocky, so that clearing the site for a



Helicopter transport of equipment to a remote site.

concrete pad or piers may be prohibitive. The location may be on the side of a hill or on a small summit where the terrain is uneven. Since the cost to deploy a PV system is a significant percentage of the overall cost, measures must be taken to minimize time and effort for equipment installation and to maximize equipment portability.

The SunWize® Power Station addresses all of these challenges. The system provides the proper balance of medium power capability, integral component packaging, portability and ease of installation necessary for these rugged remote environments.

The structure is constructed of galvanized steel members that bolt together. The system can either be shipped in pieces and assembled at the site, or built off site and transported as a completed system. This is possible because of the small footprint, and because the battery and control equipment are integrated onto the structure. The system design provides the portability and flexibility to cover all deployment needs.

Site preparation is minimized since the system is self supporting. The system is held up by four legs, each with a 12 inch square steel foot plate. Each leg can be leveled up to 12 inches to adjust the system to uneven terrain.

The system can ebe rock anchored with provided guy points, or ballasted using native materials and an optional integral ballasting screen. This allows for flexibility in deployment to suit the local terrain conditions and alleviates the need to transport heavy earth moving equipment and concrete to the site.



SunWize® Power Stations can be installed in the most rugged locations using rock anchored guy lines.

In summary, these systems can be:

- Installed on a site with minimal site preparation and installation crew.
- Pre-assembled, tested and lifted to the site by helicopter.
- Secured with steel guy lines and earth anchors or native ballast material.

The features above make a stand alone SunWize Power Station cost effective for remote sites with difficult site access and system placement issues. This changes the installation of the system from a major cost to a manageable one while still providing the excellent benefits of PV as a reliable source of power for critical, remote-site loads.