

# CHECKLIST



BEFORE YOU USE SOLAR LIGHTING OR POWER SYSTEMS

## Solar Lighting & Power Checklist

### **Does standard grid power already exist on site?**

Bringing in standard power can be very costly, especially if the grid power doesn't exist nearby. Trenching is one of the highest costs of installation of bringing the grid power to a location. There is no trenching with solar systems.

### **What are the dimensions of the area needing illumination?**

Knowing how large an area needs to be lit is key to determine exactly how many lights will be required.

### **What are your light level requirements?**

Do you need bright lights for activity or lower light levels for standard visibility and security?

### **Where is the installation location?**

Knowing the sun hours available makes sure the system is sized properly. Look for the worst case information such as longest night and lowest solar insolation information.

### **How long do the lights need to run?**

Do you need them on all night, or only for a couple hours? Customize the operation to the needs of the project helps bring down the cost of the system when designed to operate when required.

### **What type of fixture is required?**

Do you want a standard Cobrahead or shoebox style light? Or is something more decorative to meet architectural requirements needed for a project? Or would a flood or wall mount light work best? All options are available and can be designed to meet the project needs.

### **What type of pole will be preferred?**

Does the installation site require anchor base or direct burial? Would you prefer steel or aluminum poles? Or do you have poles already on site? Reusing standard light poles is not recommended; however, some concrete and wood poles can be reused.

### **What are your local wind load ratings?**

The local wind load ratings must be taken into account when designing the pole for mounting the solar to ensure the pole is strong enough to handle the weight and EPA of the solar system.

### **What is your budget?**

Off-grid solar lighting systems can save you a lot of money; however, the sticker shock can sometimes throw you. Understand the difference in cost between "off the shelf" and commercially designed systems.

# CHECKLIST



BEFORE YOU USE SOLAR LIGHTING OR POWER SYSTEMS

## Solar Lighting & Power Checklist Cont...

### **How large is the load?**

Finding out the exact power usage of the equipment needing solar power is key to system sizing.

### **Is there shading?**

Shade lowers the amount of solar power generated and needs to be considered in system sizing.

### **Can the panels face south?**

Solar panels perform best when facing directly south at an angle, preferably at 45 degrees.

### **Is there a structure available for installation?**

Do you require a pole or is there a roof or other structure available for mounting the solar panels?

### **Is an inverter required?**

Does the system run on AC power or can it run directly from DC? Most equipment is DC with an AC converter, so read all the specifications carefully.

### **Have you made the system as energy-efficient as possible?**

Using the most energy-efficient piece of equipment lowers the amount of solar needed.

### **What's the reason to go solar?**

Are you looking for a green option? Is power difficult to access? Are you looking to eliminate your electric bills? Understanding the reasoning will allow for better understanding of expectations.

### **Do you qualify for Federal tax benefits or other incentives?**

There is a lot of money available for solar applications. Check out [www.dsireusa.org](http://www.dsireusa.org) for more information on how you can get money to go solar.

**Notes:**

**Ready to speak to a solar specialist? Contact us today!**