



Operation and Maintenance

Required Maintenance

Monthly – (On a sunny day)

1. Inspect the inverter display to ensure the system is producing electricity. The display should show the watts of electricity produced and the green LED light should be on steady, not blinking.
2. Check the live data web view for your school on the BEF website to make sure that the monitoring system is functioning properly.
3. Inspect the kilowatt-hour meter to ensure that the power produced is being fed into the existing electrical system. The reading on the kilowatt-hour meter should be continuously growing whenever the system is producing power. Some systems may not have a separate production meter.
4. While looking at the inverter display and kilowatt-hour meter, take a few minutes to look at the electrical wiring around the system to ensure it is not frayed or detached.
5. Visually inspect the solar modules and remove debris (e.g. leaves, twigs, etc.).

Annually –

Inspect solar modules and array wiring to ensure there is no damage (e.g. cracked modules, frayed wires, loose racking equipment, etc.).

Recommended Maintenance

After extended periods of dry weather –

Although dust accumulation only reduces the system's power output by 1 to 2%, it may be beneficial to wash down the solar modules after long periods without precipitation. Periodic rain and snow are usually sufficient for keeping the modules clean over the course of the year. Spraying down the array with a hose can help limit losses from dust accumulation.

After a heavy rain –

If your array is mounted using roof penetrations, please check for water leaks. All of our systems are carefully installed to ensure that leaks are highly unlikely and most projects are installed without roof penetrations at all. However, there remains a very small chance that water may make its way into the roof. Inspecting your roof for possible leaks is something that should be done periodically, with or without a solar electric system.

After a heavy snowfall –

The tempered glass of your solar modules allows snow to easily melt or slide off the array. However, after an unusually heavy snowstorm, you may wish to brush large amounts of snow off the solar modules. Please use a broom or other object that will not scratch the modules if you choose to remove accumulated snow.

System Shutdown Procedure

1. Switch OFF DC Disconnect.
2. Switch OFF AC Disconnect.
3. Switch OFF AC Circuit Breaker 120V or 240 V at main panel for supply lead.
4. System will now be powered down.

Safety Notice: Remember that even with AC power disconnected, the solar modules are still energized and can be lethal.

System Startup Procedure

1. Verify all wiring AC and DC is correct.
2. Connect the grid voltage by switching ON the main 120V /or 240V AC circuit breaker of the supply lead.
3. Switch ON AC Disconnect.
4. Switch ON DC Disconnect.
5. Once the inverter is powered up from the AC and DC side, you must wait approximately five minutes for system LEDs to indicate GREEN lights of system production.

Safety Notice: Ensure that nothing is placed on top of the heat sink of the inverter, as temperatures can exceed 180 degrees F.