

Evergreen releases updated Installation Manual

With revised electrical grounding requirements

Evergreen has released an updated Installation Manual for all customers in North America. The new release is dated 14th January 2008 and can be downloaded from the products section of our website. It includes recently made changes to the electrical grounding requirements for Evergreen Solar panels.

The new requirements include the following:

- All Evergreen based systems must be electrically grounded at the negative DC pole of the array. Previously Evergreen had no requirement to use only positive or negative grounding.
- A string of inter-connected panels should not be left in open-circuit conditions for more than two days before the negative pole of the string is connected to an electrical ground.

The addition of an external ground is not required to comply with these requirements since all utility-interactive inverters in North America have ground-fault protection devices that ground the array.

The purposes of these requirements is to ensure that Evergreen panels are not exposed to a negative potential relative to ground. Evergreen has seen an effect known as “polarization” in some European systems that are not negatively grounded. Polarization has lead to temporary power loss in affected systems. Polarization can be eliminated and power fully recovered once the system is negatively grounded.

Because transformerless inverters cannot be electrically grounded, they should not be used with Evergreen panels. Evergreen panels should also not be used in bipolar arrays, because grounding of such arrays will not eliminate a negative potential relative to ground.

Evergreen has just released new model numbers signifying ES series panels which are not susceptible to polarization (see bulletin 08-02-US) and which can be used in ungrounded systems in Europe. These panels however cannot be used in ungrounded systems in North America because the type of PV cable used are not certified for use in ungrounded systems.

For any further questions on the updated Installation Manual please contact your local Distributor or Evergreen Solar representative.