

Solar Meter The instrument pictured is an inexpensive solar meter which is finding wide acceptance among architects, engineers and others engaged in construction of solar energy facilities. It detects the amount of solar energy available at a building site, information necessary to design the most efficient type of solar system for a particular location.

Incorporating technology developed by NASA's Lewis Research Center, the device is based upon the solar cell, which provides power for spacecraft by converting the sun's energy to electricity. The meter is produced by Dodge Products, Inc., Houston, Texas, a company formed to bring the technology to the commercial marketplace.

In the Dodge meter, the amount of the sun's radiation reaching the ground is detected by a single solar cell. The information is displayed by a needle pointer which gives a reading in heat or electrical units. A number of readings are taken at different times of day and summed to get total daily radiation. For information as to the energy available over a lengthy period of time, Dodge Products offers a companion device, called an integrator, which makes the measurements and computations automatically.

In addition to its utility as a solar system design aid, the meter has several other applications. For example, a company that produces glare reducing film uses the instrument to show customers the difference in solar penetration between ordinary glass and the company's specially film-coated glass. A similar application is measurement of the transmitting qualities of transparent materials. The meter is used to check the performance of concentrators, lenses and mirrors used in solar energy systems. Federal and state solar energy planners, research laboratories and educators teaching subjects that deal with solar radiation also use it.

