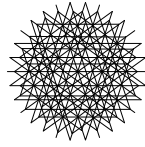


ZOMEWORKS CORPORATION



Passive Energy Products

Environmentally and Financially Sustainable: Do not rely on Hydrocarbons or Tax Credits

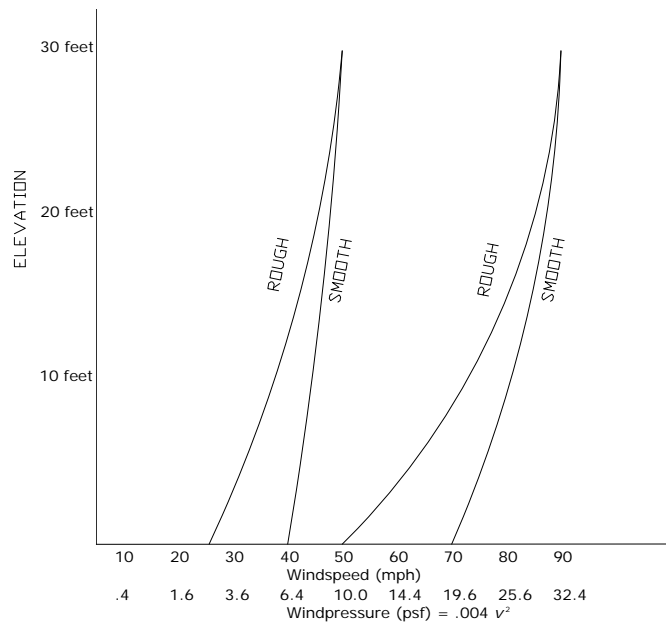
TRACKERS AND WIND

All racks with solar panels are vulnerable to wind. Passive trackers are especially so because they can flail in the wind if dampening is insufficient.

Wind blows stronger high above the ground. The rougher the terrain, the greater the affect the wind has on the racks.

The graph below shows wind speeds at different elevations. A 90mph wind at 30 feet drops to 50mph at 2.5 feet over rough ground. Smooth ground allows the same wind to maintain a 70mph velocity at 2.5 feet.

Figure 1 - Wind Velocity at Different Elevations for Rough and Smooth Terrain



A large tracker may have some panels 15 feet and lower panels within a few feet of the ground. The panels higher in the air may be pushed by a 75mph wind at 22.5psf. Meanwhile, below the axle at 5 feet, the wind is 58mph and pushes at 13.5psf. The different forces, surging and slackening with wind gusts cause the tracker's motion. Even at much slower speeds, it can make it impossible to track. In order to avoid wind problems, keep the trackers mounted as close to the ground as possible. Attaching a tracker pole to the corner of a building invites problems with wind turbulence and should be avoided. A high wind kit is also available to help protect the trackers.

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