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SPW Water Conservation

Another advantage for Polywater SPW is water conservation. #4 near the bottom of the SPW Usage Instruction page states:

"Rinse the panels with a 25-to-1 SPW™ solution (25 parts water) and let dry; otherwise, rinse with deionized water or local water supply."

The key here is that a follow-up rinse with water is helpful, but **not required**. Rinsing with dilute SPW is enough for performance improvement. This is a huge deal in arid conditions where water is a valuable commodity--especially in remote areas where you can't just turn on the garden hose and spray away--because there isn't one. This is the solar farm conundrum. In the sunniest regions where solar would presumably make the most sense, panels and mirrors require almost daily cleaning to maintain efficiency because these areas also tend to be dry and dusty. And dry means water scarcity.

What is your water availability? This issue is less of a concern to a homeowner with a roof panel in Minnesota (*The Land of 10,000 Lakes*) than to a solar farm in, say, Death Valley or the Sahara.

Water is required to create the dilute SPW solution, but that can be prepared elsewhere ahead of time near a convenient source of water and transported to the site instead of water. And of course, SPW does a better job of cleaning panels than water alone. The effectiveness of SPW means that soils are removed more efficiently and less water is used.

Field experience proves this. SPW was tested at a winery in India where the existing cleaning procedure was with water alone, requiring 5 litres per panel. Using a 25:1 water-to-SPW mix, only 3 litres were required to clean 10 panels. This equates to 0.33 litres of dilute SPW per panel vs. 5.00 litres of water! In an application in Mexico, it was estimated that use approximated 1.72 litres of dilute SPW per panel. While this is 5 times more than in the India test, it's still far less than the Indian water-only process.

These examples, though anecdotal, show significant water savings with SPW. This is especially relevant to the remote water sources near to where many of the large photovoltaic installations are located. And elimination of deionized water yields yet more water savings, since it takes more than a gallon of water to create one gallon of DI water.