



# MORE POWER LESS DIRT

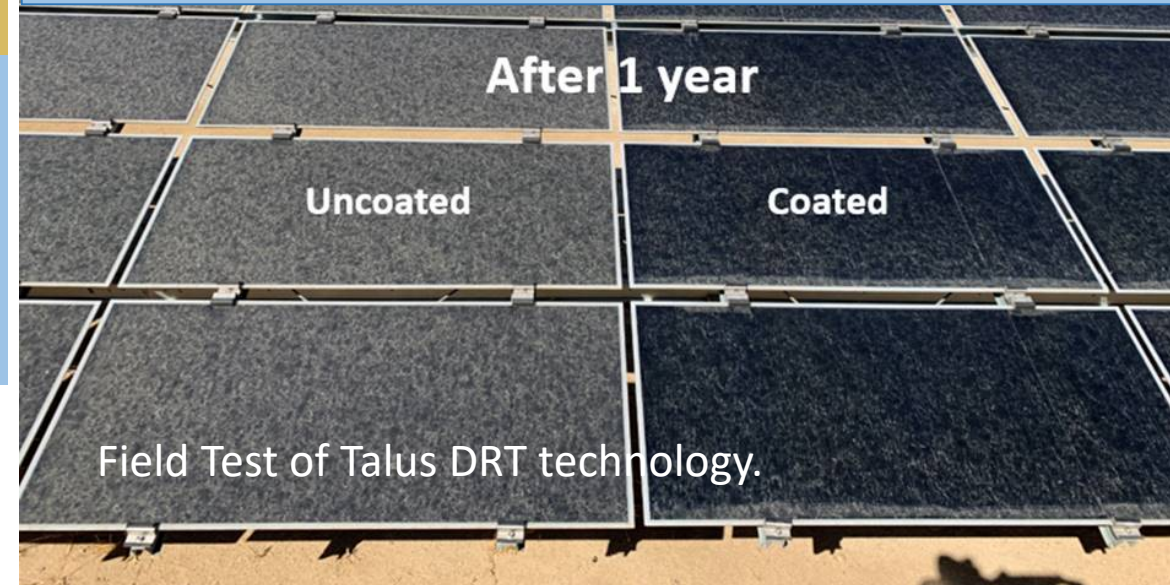
## Pellucere - Oregon State Team



Soiling on solar panels leads to significantly reduced energy yields, especially in high insolation arid and semi-arid climates. Even in optimized cleaning scenarios, soiling reduces the current global solar power production by 3%–4%, with 3–6 billion US dollar annual revenue losses.

Pellucere’s Talus dirt rejection technology optimizes the unique physical properties of our silica shield’s nano-structure to prevent the buildup of dirt and other particulates. The unique properties of Talus DRT allow it to “reject the dirt” without waiting for rain. Its excellent dirt-rejection capability, durability, un-matched optical performance, and easy installation outperform any existing anti-soiling coatings in the field.

Example of a solar plant in Southern California after 1 year (average annual power gain was 5.5%, with peaks above 10% power gain depending on wind and rainfall).



A robot applicator for MoreSun/Talus



Field Test of Talus DRT technology.



One major remaining hurdle for the broad market penetration of Talus DRT is an efficient surface treatment on installed AR-coated PV modules for the application of Talus DRT coatings. We are in the process to realize an effective surface treatment solution that will overcome this major hurdle. The result of winning the Solar Prize will lead to retrofit, anti-soiling coatings that will generate more solar power and save billions of dollars annually.