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Soiling loss calculation | Tessa

Enertis Applus+ Soiling and Snow Application (TESSA) is a web-based soiling losses in pv modules calculation system that follows the Kimber and Townsend models. It accurately estimates the annual loss in solar energy production due to dirt and snow accumulations on the surface of solar PV modules.

THE Applus+ SOLUTION

TESSA provides an accurate estimation of the annual soiling loss factor in energy production of a PV asset due to dirt and snow accumulation on the surface of PV modules.

TESSA's features include:

- The ability to process any size of historical data. Clients can upload their own weather information to the tool, and they have access to weather datasets pulled from the National Oceanic and Atmospheric Association and the Spanish State Meteorological Agency.
- The calculation of the optimal washing days to optimize the asset´s production and minimize financial losses.
- A map view to compare different calculations of an asset or projects within one portfolio at a glance.
- Automatically generated reports with key indicators.

Target customers

TESSA helps analysts to obtain relevant information for asset performance analysis, therefore, it has been designed to be used on PV plants that are operative, but it can also be utilized in the construction planning phase to help select the best locations to implement the project.

Key customer benefits

- Accurate estimation of a PV project soiling rate that allows the definition of the most appropriate time for cleanings and maximizes the investment rate of return (IRR).
- Clients can also run different scenarios of cleaning schedules to investigate the viability of hiring an automated cleaning solution.
- Clients can also refine the search for the best location to build a new power plant based on the soiling accumulation profile of each region according to soiling losses in PV modules' historical data.