Guidelines for Operation and Maintenance of Photovoltaic Power Plants in Different Climates

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• While the solar monitoring industry is moving towards 'predictive' monitoring solutions, these capabilities are not yet fully deployed at industrial scale and require further development, validation and demonstration.

• The forecast of PV power is essential for trading electricity on the day-ahead or intraday electricity markets. It is particularly important for ensuring grid stability and for the bankability of PV plant projects without fixed feed-in tariffs.

• Well-designed O&M specifications and a flexible and tailor-made O&M system that considers both climactic impact on the systems and possible changes in grid requirements are good practices for PV power plants.
Guidelines for O&M of Photovoltaic Power Plants in Different Climates

• Operations & Maintenance (O&M) operators need to customize O&M services to the respective climates. This can be complemented by a comprehensive O&M agreement that includes future needs such as changing grid requirements.

• The report established guidelines based on the seven different climate zones in which PV plants are commonly operated. Each of these zones is distinct and has its own risks and particularities.

• Reducing both safety and performance risks by ensuring that personnel are adequately trained and equipped to perform O&M operations and by applying PV forecasting. Both are essential to reducing plant downtime and maintaining plant performance to specifications.