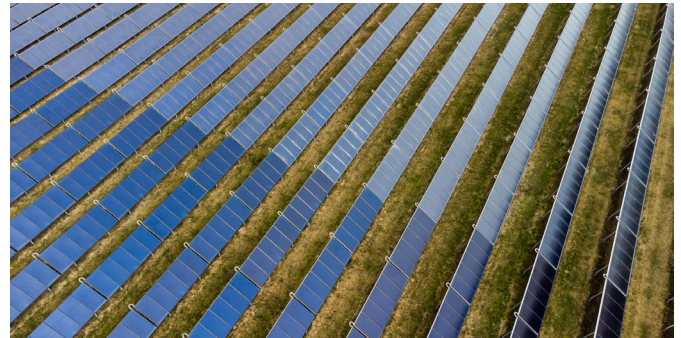


TUV India - Solar PV Plant Assessment using Unmanned Aerial Vehicle (DRONE)



Unmanned Aerial Vehicle (Drone) Assessment

A drone, in a technological context, is an unmanned aerial vehicle. Essentially, a drone is a flying robot. The aircrafts may be remotely controlled and can fly autonomously through software-controlled flight plans in their embedded systems working in conjunction with on-board sensors and GPS. Drone inspection is accurate, safer and quicker.

Drone Assessment in Solar PV Plant

With a lot of technological advancement and continuous research, the emphasis lies on making solar power plant more cost effective, rolling out the project in a time-bound manner to ensure quick return on investment. Thus the application of a drone for Solar PV Power Project like assessment of design, site assessment, construction, operations & maintenance of Solar Power Plants is playing a very critical role and in a way revolutionizing the overall project approach and implementation.

TUV India's UAV based services

Site assessment

UAV is used for assessing the site for terrain conditions, topographical survey, drainage survey, high and low of land flooding, obstacles, boundary layout marking & shaded free areas.

Assessment during construction of the projects

Pile foundation dimension, pile foundation and alignment angle, Dimension Module Mounting structure (MMS) and alignment, inverter room and pooling substation coordinates and allied assessments.

Assessment after the construction of the project

Validation of the project lay out for entire plant, visual inspection of PV modules, pre-commissioning inspection of Transmission Line.

Operational and Maintenance assessment using Infrared Camera

Assessment of the degradation of PV modules (hotspots, cracks), aging, malfunction, breakdown, AC / DC cable & inverter transformer thermal image and related assessments.

Customers

- Solar Projects Developers
- Independent Power Producers
- Bankers
- EPC contractor



Benefits to customers

- Assessment of the suitability of the site
- Reliable data of the equipment, installation, operational maintenance and performance
- Time saving
- Cost Saving

About Us:

TUV India Pvt. Ltd. (TÜV NORD GROUP) is a customer-focused, innovative, and independent, technical, quality & safety services organization, dedicated to providing future-proof solutions through technological excellence for the success of its customers with the highest level of integrity. With a presence at over 40 strategic locations in India; a branch office in Sri Lanka and Bangladesh; state-of-the-art laboratories at Pune, Bengaluru, Noida and Jamnagar; 100 important countries worldwide and through digital means, we are always connected to you, our esteemed customer, anywhere, anytime.

We are proud to provide increasing levels of services to the best known, largest global and national companies as well as medium and small industries in diverse sectors like Oil & Gas, Petrochemical, Nuclear, Renewables, Infrastructure, Food, Power, Manufacturing, Chemicals, Pharma, Paper,

Automobiles, Railways, Aerospace, Defence, IT, Health, Hospitality, Retail, etc.

Over 1400 competent and experienced TUV India experts spread across India and over 14000 TÜV NORD experts all over the world, enthusiastically support our clients by providing value-added services in Industry Inspection, European / International Approvals, Management System & IT Certification, Sustainability, Energy Audit, Water Audit, Carbon Services, Building Infrastructure & PMC, Renewable Energy, Food & Packaging Testing, Food Certification & Inspection; Testing of restricted and banned chemicals in Automotive and Electrical & Electronics components and other regulated industries, Product Testing – Electricals, Electronics and Industrial Machinery; Product Certification; Petroleum, Chemicals & Gas Cargo Inspection; Petroleum, Chemicals & Gas Testing; Railway Technology; Engineering, Safety Studies, and knowledge enhancing training programs under TUV India Training Academy.

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