



“Reliability of trackers largely depends on their engineering and make”

Ashish Khanna, ED & CEO, Tata Power Solar, advises that factors such as land, O&M cost, weather and latitude beside other considerations like electric rates, government incentives, etc., need to be considered before installing solar trackers in any project.

How can solar trackers enhance the overall project?

Solar trackers, as the name suggest, tracks movement of the sun through the day, both vertically and horizontally and direct their payload, in this case, solar panels towards the sun. This enables the panels to continually adjust at the optimum angle with falling sun rays have minimum angle of incidence on the panel throughout. This helps in maximum capturing of the energy and consequently leads to more energy generation. Some studies suggest that this improved efficiency leads to increase in electricity production. Thus, large plants and mostly utility scale plants are mounted on solar trackers, which can enhance the overall generation of the project.

What technologically advanced systems are currently available?

There are various types of solar trackers available in the market that can be broadly categorised as single-axis and dual-axis. Single-axis can move only back and forth and have various sub categories as horizontal, vertical and tilted. Double axis, on the other hand move both horizontally and vertically, thus redirecting sunlight at an optimum angle towards the panel, at all the times. In India, we have built some utility scale projects with solar trackers. There are many facets to be considered and possibly because of that, usage is not widespread either in India or the international market.

What are these factors to be considered?

Largely, land constraints, weather and latitude beside other considerations like electric rates, government

incentives, etc., are the factors that impact the decision of using solar tracker in a project. Given the current pricing of modules, trackers and the cost benefit analysis, off late not many developers are opting for trackers. Solar trackers are not financially viable option for rooftop projects.

Have trackers made a drastic difference when it comes to energy output?

Sometimes difference of as high as 20-35 per cent of energy generation that can be achieved with the help of solar trackers. In India there are some noteworthy solar tracker projects being commissioned. Solar trackers are viable options for ground mount solar deployment. We have deployed tracker at smaller capacities for validation and currently in the process of implementing tracker for one of the large projects of 31 MWp at Beed, Maharashtra.

Developers have reservations about reliability, installation and suitability of trackers. Have you faced these?

Tata Power Solar is India's largest integrated solar company, and we undertake due evaluations before implementing any project. Our capabilities are built upon 27 years of experience and legacy spanning over a century. Reliability of trackers largely depends on their engineering and make. Besides, as mentioned above trackers come with average warranty of 5-10 years. Additionally, there are very few manufacturers in domestic market with proven record of making high quality solar tracker. Feasibility of solar tracking system also depends on the climatic conditions. In this context, installing solar trackers in south India has more economical value.

|ST|

- RAHUL KAMAT