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New Delhi [India], December 8: Innovation: KP Group migrates from manual to Robotics water-less solar panel cleaning to save a minimum of 3,60,000 litres of water per year/MWp; Another step towards protecting the environment; already deployed at nine sites.

KP Group has earned a name for its commitment to innovation. The company's in-house R & D Team has developed robots for cleaning the solar panels. It has set up a new startup with the name "KPI Green OMS" and hired a team of robotic engineers for the same. A factory has been established in Ahmedabad for developing solar panel cleaning robots. Robotic cleaning of solar panels is being undertaken at KP Group's nine solar sites at Sudi, Ranada, Samoj, Vedchha, Bhensli and Vagra on a trial basis. Under the leadership of KP Group CMD Dr Faruk Patel, robotic engineers Zaid Kesrani, Ravindra Rehewar and Harsh Mevada have been tasked with creating and deploying more than 100 robots for panel cleaning at various project sites. The Robot's battery lasts for three years. With a backup battery, the robots can be deployed for six hours at a stretch. [Robot is portable makes shifting between rows easy. It is adjustable in length to accommodate different module sizes, and the cleaning brush height can be adjusted to provide more efficient cleaning. The Robot's structure is sturdy and can handle various environmental conditions.]

What are the benefits of robotic cleaning?

1 - The speed of cleaning has increased. A robot can clean 40 solar panels every minute. Solar panels of up to 700 KW can be cleaned in an hour.

2 - Cleaning can be accomplished easily with less manpower and time savings. Until now, ten employees could clean solar panels of 1.5 MW in a 6-hour shift. Moreover, the cleaning had to be undertaken during night hours. As a result of the deployment of robots, only two resources are needed for monitoring and shifting the robots. Cleaning is also possible during the day time now and that too in just one-fourth of the time.

3 - There is a marked saving in water required for cleaning the panels. When cleaning was done manually, each panel required around 3 litres of water, a very precious natural resource. With robots, there is no need for water for cleaning. It is especially beneficial in sites prone to water shortage. Cleaning was also a challenge at many sites due to the availability of only hard water. In such cases, water tankers were required to be ordered. Using robots for cleaning has helped the company address many such challenges.

For more information, please visit: https://kpgroup.co/

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