

Eileen J. Marum
Marion Planning Board
Report of the SRPEDD Board of Commissioners
June 27, 2018

RE: Drone Technology and Environmental Impact Assessment

With investment in renewable energy sources such as wind, hydro, and solar over the last decade, the need for cost-effective and safe inspection methods has grown exponentially. Wind turbines are vast in size and are typically located in remote areas that are hard to reach. Cherry pickers, service platforms, hydraulic cranes, and rope decent are all methods that can be used to carry out safety inspections on wind turbines, but all of them come with risks and potential challenges.

Drone inspections provide a safe and efficient solution to these issues as they do not require the use of heavy equipment, nor do they require an inspector to climb the turbine. A camera is attached to the drone and captures high-resolution footage all at a lower cost and with far less downtime of traditional methods.

Using an inspection drone in place of, or in addition to, conventional methods of facility management provides untapped potential for saving costs via activities such as automated maintenance, integrity, and surveillance workflow, and automated data gathering and analysis. Drone technology can also provide predictive insights on facilities, which can then be used to drive operational decisions, and lead to improvement in maintenance.

Drones or unmanned aerial vehicles (UAVs) provide a safer and cheaper alternative to traditional methods of assessing infrastructure—wind turbines, solar and hydro. Drones are easy to deploy, carry cameras and can be equipped with transmitters that share the footage in real time, allowing the operator to see exactly what is happening at a given time. Also, drones can fly within a couple of yards of structures.

An increasing number of communities are beginning to use drones for inspection as they address the operational challenges faced by human inspections, for instance, corrosion identification, detection and analysis of hairline cracks, spillage and leak detection, dilapidation assessments, and land surveys.

Also, I have been appointed to the SRPEDD Executive Committee.

Respectfully submitted,

Eileen J. Marum

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