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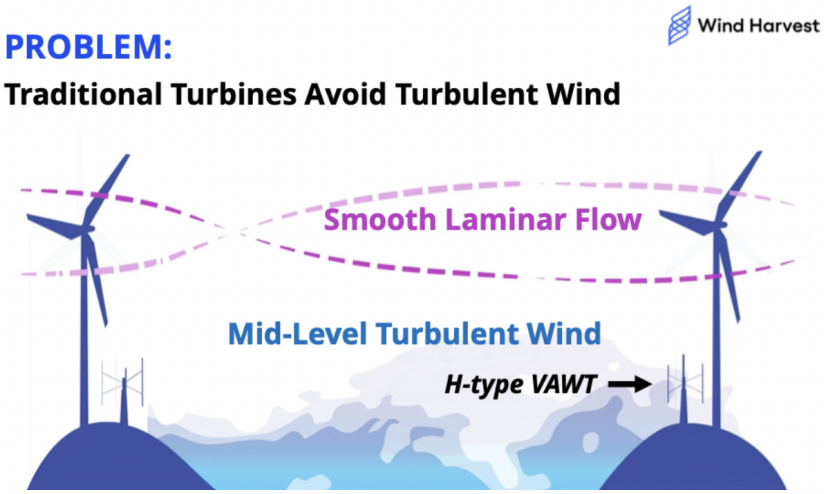
New Study Shows Groundbreaking Mid-Level Wind Turbines Can Almost Quadruple Wind Energy Output in the San Gorgonio Pass

A new study by Wind Harvest, a company that is building a novel type of short, utility-scale turbine, has found that mid-level wind turbines could almost quadruple the energy output in the notoriously windy San Gorgonio Pass (SGP). **These turbines would provide enough energy to power 1 million California homes each year.**

Mid-level wind is a term used to describe the currently untapped energy resources found in the turbulent wind 15 ft to 100 ft (5-30m) above the ground. In contrast, modern horizontal axis wind turbines (HAWTs) take advantage of smooth (laminar) wind energy over 100 feet above the ground.



In this study, Wind Harvest analyzed 65 feet (20m) above-ground wind speeds in the San Gorgonio Pass using publicly available location information and average annual wind speeds from UL's Windnavigator, the world's best tool for evaluating wind speeds, with data verified by a meteorologist who has collected data in the Pass for over 40 years.

The analysis shows that existing farms could add 1,807 megawatts (MWs) of short, *Wind Harvester*-type vertical axis wind turbines (VAWT) to the 682 MWs of HAWTs currently installed. Windy areas around the existing wind farms that are presently blocked from HAWT installations could add another 1,329 MWs of short VAWTS for a total of over 3,100 MWs (3.1 GWs) of capacity.

Based on the mid-level wind speeds in the zone and the annual energy production of *Wind Harvester* VAWTs, the addition of 3.1 GWs of mid-level turbines would produce ~10,000 GWh of electricity per year. **That is almost four times the existing 2,661 GWh of annual energy output. The additional output would supply one million California homes with all the electricity they use in a year.**

Many wind-rich areas in the SGP have not been developed, despite minimal regulatory, environmental, or population concerns. One hypothesis as to why, according to the study, is that owners and neighbors of these properties do not wish to see conventional 300' to 500' tall turbines installed there. The study supposes that there won't be strong opposition to mid-level VAWTs that can be as short as 60' tall, especially when installed under existing wind turbines on already-developed land.

Kevin Wolf, CEO of Wind Harvest, said of the study: "To achieve a clean energy future, we need to make use of the least expensive sources of renewable energy. Doubling the use of the land and infrastructure in the state's small number of wind farms and making use of wind that blows in areas previously unreachable by current wind turbines would be a huge win for the state's ratepayers."

Read the full report HERE.

Wind Harvest designs, makes, and sells *Wind Harvester*™ VAWTs to commercial and utility customers. These turbines will vary in capacity from 50 kilowatts ("kW") to 250kW. Their blade tips will reach as high as 120 feet above the ground. All will be designed for the turbulent and gusting mid-level wind that traditional turbines are unable to use. Their first *Wind Harvester* will be third-party certified and available for sale in 2024 with 50 to 75kW generators.
For more information on Wind Harvest, visit https://www.windharvest.com.

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