

Power Generation in Highways using VAWT and Solar

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Abstract: *The main aim of the project is to electrify the country with a combination of wind and solar energy. Our goal is to build a wind turbine compact enough to suit road distribution. Therefore, we decided to build a Vertical Axis Wind Turbine (VAWT) on top of the Horizontal Axis Wind Turbine (HAWT). The advantages of VAWT over HAWT are compactness, low noise, easy installation and maintenance, and responsiveness to wind from all directions for the same power generation. A wind turbine is designed to produce enough electricity for domestic use. The electricity produced is stored in the battery and given to the load. The project focuses on low-cost use of electricity in remote areas, but load balancing must also be done to meet the needs of urban areas*

Keywords: Vertical axis wind turbine, Design, Battery swapping technology, Manufacturing plan, Draft sheet of design

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