

# Review on Electric Vehicle Charging System by Using Solar

Dhekane Akash. G.<sup>1</sup>, Kuralkar Akshay S.<sup>2</sup>, M Shbhash B.<sup>3</sup>, Rode Rahul G.<sup>4</sup>

Assistant Professor, Department of Electrical Engineering<sup>1,2,3</sup>

Principal<sup>4</sup>

S. M. R. B. P. Polytechnic, Madadgaon, Ahilyanagar, India

**Abstract:** In this paper we are introducing an updated version of charging of batteries through renewable energy grids. The major sources of this charging by solar panels and wind turbine. A voltage regulator is used to produce a constant voltage at the output side. Buck-Boost converter is used to convert the low voltage DC[LVDC] to high voltage DC[HVDC]. A rectifier circuit is used only at the output of wind turbine which rectify the harmonics produced. This power is stored in the battery. The output of this battery can be used for any type of electrical components. However, we are using a switching mechanism used at the battery side which makes sure that output from the batteries will be continuous. This project also presents wireless charging of electric vehicle [EV] mainly focusing on resonant technology. The main goal is to transmit power using wireless power charging with the maximum efficiency at a low cost. The power is transmitted through resonance coupling. This technology uses mutual inductance which is standard. The energy sources of this system are solar and wind energy. Use of Buck-Boost converter, voltage regulator with C smoothing. Finally transmitting coil coupled with battery at both the end of these coil.

**Keywords:** Solar Panels, Wind Turbine, Buck-Boost Converter, Resonance Coupling, Mutual Inductance.

