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# Amalgamation of Wind, Tidal and Solar Energies to Generate Electricity

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***Abstract*—The fusion of wind, tidal and solar (WTS) energies to generate electricity is a groundbreaking project. The shortage of electricity approximately 960MW in Balochistan is a serious concern not only for the residents but for the potential commercialization of the impoverished region especially the undertakings of CPEC aren't fully utilized until the energy shortage problem is addressed properly. The coastal area which is highly charged, if properly utilized can solve the prevailing problems of energy shortage. The concept of power generation from a WTS system is discussed. The data for wind speed, wind cycles, solar radiations for the Makran coastal belt of Balochistan is taken from government database. This thesis describes the concept and designing of a hybrid system to generate electricity. The fusion of these three renewable sources consist of photovoltaic cells to convert high intensity solar energy, wind turbine to harness energy from blowing wind and tidal turbine to convert energy of tides into electricity. The feasibility for such projects in the long coast of Balochistan is worth noting: About 4 m/s wind speeds are noted for Pasni and Jiwani which are comparatively very high. The designing of this project for the 800km long coastal area is a crucial step to ensure a stable economy and around-the-clock energy supply to bolster business and financial endeavors to eliminate the ever present problems related to energy shortage.**

***Keywords*—Wind, Tidal, Solar, China Pakistan Economic Corridor (CPEC), HOT-PC (Hybrid Offshore Turbine Power Fluctuation Compensation), Photovoltaic**