**HYBRID PV/WIND/BATTERY/DIESEL GENERATOR ENERGY SYSTEM FOR HYDERABAD CITY, PAKISTAN**

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**ABSTRACT:-**Through this paper, the optimized cost was estimated to develop a new hybrid system contains a combination of various alternative energy resources. Designing any new project requires an estimation for the minimum amount of money required for initiating it as well as the cost of operations when it is in running process. For any electric power project, the cost of electricity is very significant because it totally affects the end user or the consumer. By using HOMER simulator, these parameters were analyzed. The project was implemented in Hyderabad City, located in southern Pakistan. This city is gifted many natural resources that can produce a considerable amount of power energy for the region. This paper, highlights the average amount of all these resources that can be achieved throughout the year.

**Keyword**: Renewable Energy, Load Cast Management, Optimization Load Forecasting, Solar energy, and Wind energy.