Optimal cost estimation for PV plant operation with tariff incentive

Jamshaid Mannan, Hyun-Min Kim

1) Department of Mathematics, Pusan National University, Busan South Korea.

Corresponding Author: Jamshaid Mannan, jamshaid@pusan.ac.kr

Abstract

The Rapidly increasing population at planet earth has created an energy crises and requirement of energy is increasing day by day. Researchers are evaluating different renewable energy sources on the basis of low cost, ease of implementation and continues availability of energy etc. Photovoltaics (PV) systems has put itself at favorable position among other renewable energy resources, due to relatively low cost, clean and environment friendly. In this study a mathematical model for photovoltaic system coupled with storage bank is proposed. A scheme is presented for evaluation of optimal cost on consumer’s shoulder by fulfilling all demand requirement. Different tariff incentive schemes are implemented to comprehensively summarize the effective cost. A detailed statistical analysis have been presented to analyze, import, export betray status and solar energy.