

Calculation of optimal capacity of a hybrid photovoltaic-wind power generation system

Shinyoung Kim*, Hyun-Jin Lee**, Chang Ki Kim*, Yong-Heack Kang*,
Chang-Yeol Yun*, Gil-Soo Jang***, Hyun-Goo Kim*†

Korea Institute of Energy Research, Daejeon, Korea*

Kookmin University, Seoul, Korea**

Korea University, Seoul, Korea***

In this paper, hybrid PV-wind power generation system in Jeju Island has been designed using Hybrid Optimization of Multiple Energy Resources (HOMER). Typical Meteorological Year (TMY) data which have been produced applying Sandia method based on database, over the past 20 years measured by Korea Meteorological Administration (KMA) were used as input. Verification of the system will be needed through comparison with System Advisor Model (SAM) result hereafter.