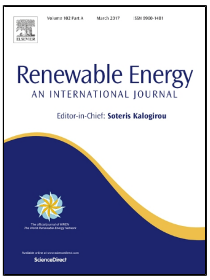
Accepted Manuscript



The Impact of Wind Farm Location and Control Strategy on Wind Generation Penetration and Market Prices

A.S.A. Awad, Mohamed Hassan Ahmed, T.H.M. EL-Fouly, M.M.A. Salama

PII:	S0960-1481(16)31125-9
DOI:	10.1016/j.renene.2016.12.066
Reference:	RENE 8403
To appear in:	*Renewable Energy*
Received Date:	07 July 2016
Revised Date:	02 November 2016
Accepted Date:	26 December 2016

Please cite this article as: A.S.A. Awad, Mohamed Hassan Ahmed, T.H.M. EL-Fouly, M.M.A. Salama, The Impact of Wind Farm Location and Control Strategy on Wind Generation Penetration and Market Prices, *Renewable Energy* (2016), doi: 10.1016/j.renene.2016.12.066

Highlights

The main contributions of the current research work are summarized as follows:

- Development of a novel bi-level optimization framework that is used to determine the optimal penetration level of wind farms in power systems.
- Studying the impact of wind farm control strategy on the optimal penetration level and operation of power systems.
- Presenting some practical cases studies for the allocation of wind farms in power systems.