

Title: A stochastic programming approach for the development of offering strategies for a wind power producer

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Source: Electric Power Systems Research

Volume: 89 **Pages:** 45-53 **DOI:** 10.1016/j.epsr.2012.02.013 **Published:** Aug 2012

Document Type: Article

Language: English

Abstract: A stochastic programming approach is proposed in this paper for the development of offering strategies for a wind power producer. The optimization model is characterized by making the analysis of several scenarios and treating simultaneously two kinds of uncertainty: wind power and electricity market prices. The approach developed allows evaluating alternative production and offers strategies to submit to the electricity market with the ultimate goal of maximizing profits. An innovative comparative study is provided, where the imbalances are treated differently. Also, an application to two new realistic case studies is presented. Finally, conclusions are duly drawn. (C) 2012 Elsevier B.V. All rights reserved.

Author Keywords: Stochastic Programming; Offering Strategies; Wind Power; Uncertainty

KeyWords Plus: Neural-Network Approach; Short-Term Energy; Electricity Market; Generation; Prediction; Storage

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Funding:

Funding Agency	Grant Number
European Union through COM-PETE	
Fundação para a Ciência e a Tecnologia - FCT	FCOMP-01-0124-FEDER-014887 (Ref. FCT PTDC/EEA-EEL/110102/2009) SFRH/BD/62965/2009

Publisher: Elsevier Science SA

Publisher Address: Po Box 564, 1001 Lausanne, Switzerland

ISSN: 0378-7796

Citation: Pousinho H M I, Mendes V M F, Catalão J P S. A stochastic programming approach for the development of offering strategies for a wind power producer. Electric Power Systems Research. 2012; 89: 45-53.