FORECASTING THE DAY-AHEAD ELECTRICITY PRICE IN NORD POOL WITH NEURAL NETWORKS

Published by Valuation & Research Specialists (VRS)



CONTENTS

ABSTRACT	5
INTRODUCTION	7
ELECTRICITY EXCHANGES	10
FORECASTING ELECTRICITY PRICES: A LITERATURE REVIEW	12
FORECASTING THE DAY-AHEADELECTRICITY PRICE IN NORD POOL	15
EMPIRICAL RESULTS	19
CONCLUSIONS AND FURTHER WORK	20
ACKNOWLEDGEMENTS	20
REFERENCES	21
NOTES	23
DISCLOSURE STATEMENT	24

By **Dr. A. Zapranis**, Associate Professor and **Dr. E. Livanis**, Postdoctoral Research Fellow and now Lecturer

Department of Accounting & Finance, University of Macedonia of Economic and Social Sciences, Thessalonica, Greece

Republication: August 2013 (Initial Publication: Year 2008)

Please contact Valuation & Research Specialists (VRS) at info@valueinvest.gr to order a printed copy of this report. Price: 20 Euros including VAT and postage expenses.

FORECASTING THE DAY-AHEAD ELECTI	RICITY PRICE IN NORD POOL WITH NEURAL
NETWORKS - Some Preliminary Results	(Republication)

ABSTRACT

The ongoing deregulation of electricity sector worldwide has developed a competitive environment. These new challenges contribute to the development of a more reliable energy supply mechanism with lower cost and to the development of electricity exchanges. A better forecast of the expected electricity price helps market participants to improve their bidding strategies. In this paper, we try to investigate if a non-linear neural network estimator can provide some incremental value vs. a linear model. Our results which are in line with those of similar studies indicate that the nonparametric approach can improve the forecasting ability of linear models. Further work can be considered in the field of estimation of neural network interval forecast and the combination of wavelet analysis and neural network modeling.

KE'	V W	n	RΙ	26
1			1/1	70

N/A

DISCLOSURE STATEMENT

VALUATION & RESEARCH SPECIALISTS (VRS) is an independent firm providing advanced equity research, quality valuations and value-related advisory services to local and international business entities and / or communities. VRS services include valuations of intangible assets, business enterprises, and fixed assets. VRS's focus business is in providing independent equity research to its institutional and retail clients / subscribers.

VRS is not a brokerage firm and does not trade in securities of any kind. VRS is not an investment bank and does not act as an underwriter for any type of securities.

VRS accepts fees from the companies it covers and researches (the "covered companies"), and from major financial institutions. The sole purpose of this policy is to defray the cost of researching small and medium capitalization stocks which otherwise receive little research coverage. In this manner VRS can minimize fees to its clients / subscribers and thus broaden investor's attention to the "covered companies."

VRS analysts are compensated on a per-company basis and not on the basis of their recommendations. Analysts are not allowed to solicit prospective "covered companies" for research coverage by VRS and are not allowed to accept any fees or other consideration from the companies they cover for VRS. Analysts are also not allowed to trade in the shares, warrants, convertible securities, or options of companies they cover for VRS.

Furthermore, VRS, its officers, and directors cannot trade in shares, warrants, convertible securities or options of any of the "covered companies." VRS accepts payment for research only in cash and will not accept payment in shares, warrants, convertible securities or options of "covered companies" by no means.

To ensure complete independence and editorial control over its research, VRS follows certain business practices and compliance procedures, which are also applied internationally. Among other things, fees from "covered companies" are due and payable prior to the commencement of research and, as a contractual right, VRS retains complete editorial control over the research process and the final equity analysis report.

Information contained herein is based on data obtained from recognized statistical services, issue reports or communications, or other sources, believed to be reliable. However, such information has not been verified by VRS, and VRS does not make any representation as to its accuracy and completeness. Opinions, estimates, and statements nonfactual in nature expressed in its research represent VRS's judgment as of the date of its reports, are subject to change without notice and are provided in good faith and without legal responsibility. In addition, there may be instances when fundamental, technical and quantitative opinions, estimates, and statements may not be in concert. Neither the information nor any opinion expressed shall constitute an offer to sell or a solicitation of an offer to buy any shares, warrants, convertible securities or options of "covered companies" by no means.