

Christian Redl¹, Derek W. Bunn²

COMPONENTS OF THE FORWARD MARKET PREMIUM IN ELECTRICITY

¹ Energy Economics Group, Vienna University of Technology, Gusshausstrasse 25/373-2, A-1040 Vienna, Austria, Tel. +43-1-58801-37361, Fax +43-1-58801-37397, redl@eeg.tuwien.ac.at ² Energy Markets Group, London Business School, United Kingdom

Abstract

This paper presents a multifactor empirical analysis of the determinants of the realised premia in forward prices for electricity, when compared to their associated spot prices. Considering a wide-ranging set of factors involving fundamental, behavioural, dynamic, market conduct and shock components, a number of propositions are tested on a long data set from the most liquid of European forward markets, the EEX. We show that parts of what is conventionally regarded as the market price of risk in electricity is actually that of its underlying fuel commodity, gas; that market power has a double effect on prices, notwithstanding the theoretical procompetitive properties of forward trading, insofar as it increases spot prices and induces a forward premium; that oil price sentiment spills over and that these premia react in an positive way to scarcity and the higher moments of spot price uncertainty. We observe that considerations of the efficiency of the forward premium are at least as important as those of spot market price formation in wholesale power trading.