

ПЛЕНАРНЕ ЗАСІДАННЯ

Silvester van KOTEN

Cerge-EI, UJEP-FSE

Bert WILLEMS

Tilburg University

AUCTIONS FOR RENEWABLES AND DEFAULTS: THE PROBLEM OF UNFULFILLED

Germany has recently implemented auctions for market premia to support wind generator projects as legislated in the Renewable Energy Sources Act (EEG). While the first auctions have been held, the precise workings of the incentives and their long-term outcomes are still unknown. A notable observation was that the majority of winning bids was by privileged bidders (as opposed to the other bidders, they did not have to make a pre-investment to be eligible for the auction).

The present paper addresses the incentives and their long-term outcome by modeling the auction as a participation game and, at a later stage, testing the model in an experiment. We argue that the auctions are correctly modeled as a participation game due to the relatively strict eligibility requirement for bidders in the form of obtaining all necessary permits, which is effectively a form of sunk pre-investment. Potential bidders thus must make a decision to participate or not by making a sunk pre-investment. The number of bidders that decided to participate then enters the auction. We simplify the bidding process by assuming a simple peak-load pricing scheme (when supply by bidders is larger than demand, the price is equal to marginal cost, otherwise equal to the price cap).

The model predicts a trade-off of spillage (too many entrants causing losses by unused sunk pre-investment) versus too few entrants (welfare losses due to too few wind generator projects being realized leading to VOUG (Value Of Uncontracted Generation)). The government can choose the prevalence of each trade-off by adjusting the price cap. Lowering the value of the sunk investment (and perhaps replacing it with the transfer in the form of a bond) lowers all losses. In addition, the model predicts that when some bidders are privileged in the sense of being eligible without pre-investment, then these privileged bidders will crowd out the other non-privileged bidders.