

# UK transmission congestion problem: Causes and solutions

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- the topic developed in the paper is a key issue in the transmission activity
- interesting approach of the congestion problem and of the forward prices volatility in GB
- clear explanations of the British re-dispatch mechanism
- the arguments of the paper might be extended to the congestion problem in other european countries

# Agenda

- summary
- arguments of market power
- set of questions (1/2)
- concerning the solutions
- set of questions (2/2)

# Summary

- the congestion problem has increased since Scotland joined the British electricity market in 2005
- Ofgem considers that it is linked to a non-competitive behavior from Scottish generators (output manipulation and exploitative bidding)
- the paper shows that:
  - ▶ the management of congestion (re-dispatch) creates a change in the competitive benchmark
  - ▶ all competitors have the same adverse incentives in the short and long run
  - ▶ advantages and drawbacks of the solutions: locational clearing prices and ongoing solutions

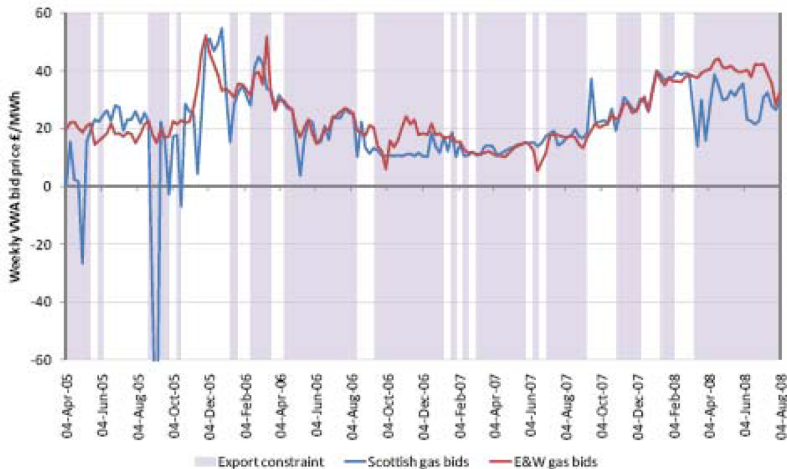
# Arguments of market power

- in the paper, the congestion problem is not due to an abuse of dominant position but it is linked to the existence of arbitrage between the forward market and the BM
- however, authors do not deny the existence of market power
- in the re-dispatching framework, it is hard to demonstrate that output manipulation and exploitative bidding prove the abuse of a dominant position

# Set of questions (1/2)

- may you evaluate the impact of market power on the price volatility?
- why do only Scottish generators act in this way, i.e. increasing the congestion problem, and not English ones?
- may the different behaviors in Scotland and England be due to tacit collusion in Scotland? or linked to a strategic/global game?

**Figure 1. Accepted BM Bids in constrained and non-constrained periods, Scottish gas plant versus E&W gas plant April 2005-August 2008**



# Concerning the solutions

- TAR, locational BSUoS and MPLC:
  - ▶ not an integrated and comprehensive approach
  - ▶ only a partial solution to the existing problem
  - ▶ do not solve the problem of potential arbitrage between forward market and BM
- locational clearing prices with a system of Financial transmission rights:
  - ▶ integration of the congestion problem in the energy market
  - ▶ best solution to reduce congestion problem
  - ▶ may be hard to implement and very time consuming, e.g. it took 11 years in California to develop and implement a nodal prices system (Isemonger, 2009)



## Set of questions (2/2)

Remark: the study of the solutions seems to be too short

- different characteristics exist for nodal prices system, especially concerning the capacity aspect → which one should UK choose?
- may you evaluate the cost of implementation of each solution in UK?
- why don't you develop a cost/benefit analysis in order to rank each solution thanks to its efficiency?