



**Discussion of**  
**Market design**  
*Implementing the internal market of electricity*

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All views expressed are purely personal and cannot, under any circumstances, be considered as an official position of the CRE

# SCOPE OF THE PAPER

- Very comprehensive description of the evolution toward liberalisation of the electricity sector in various countries or regions, namely:
  - US
  - Britain
  - Nordic countries
  - Germany
  - Spain
  - Netherlands
  - France
- Significant sample containing a range of market situations and solutions with contrasted success.
- Proposal of some conclusions on the lessons that can be learned.

# MARKET REQUIREMENTS

- What is to be achieved?  
“Competition requires that entrants can deliver power to consumers on the same terms as incumbents, and that requires non-discriminatory access to transmission and distribution, unbundled cost-based tariffs for their use, and no informational advantages to the incumbent.”

A demanding but necessary target and many unsolved problems.

# NETWORK ORGANISATION

- Debate on the appropriate network unbundling that could be reached through three solutions:
  - ownership unbundling (first best)
  - ISO scheme (but how to incentivise ISOs and grid owners)
  - TSO legally unbundled (an EU legislation obligation) under regulatory and judicial pressure to implement access and balancing arrangements that minimise consumer costs.

# IMPORTANT MARKET DESIGN FEATURES

- The paper identifies some major steps
  - regional integration of power exchanges (PXs),
  - agreements among Transmission System Operators (TSOs) including the increase of information sharing between them,
  - balancing markets integration in order to increase markets liquidity especially in the short term.
- Network issues are essential to succeed and require regulatory actions.
- PXs cannot work efficiently otherwise

# CO-OPERATION BETWEEN TSOs

- Essential to deliver real benefits in areas of efficiency, quality of service and for security of supply
- Key areas for co-operation include investment analysis, emergency planning/maintenance and balancing
- Co-operation occurs today but:
  - further co-ordination may be required
  - arrangements to enable, supervise, and approve such co-ordination may also be required (Regulation 1228/2003)
  - balancing market opening obligation very likely to be included as TSOs mandatory duties in national and even European legislation.

# MAKING TRANSMISSION CAPACITY AVAILABLE

- Establish a clear and consistent framework for:
  - cross border investment in transmission capacity
    - planning and development
    - Remuneration
    - long range transmission costs versus more balanced geographical generation patterns
    - long term investment incentives and accuracy of market signals for that purpose
  - management of available capacity
    - incentives on TSOs to maximise it
    - effective enforcement of 'UIOLI' rules?
    - Secondary capacity trading?
    - What kind of TSO commitment concerning sold access rights (physical or financial)?

# EFFICIENT PRICING AND ALLOCATION OF CAPACITY

- The best theoretical solution is the nodal pricing of the FERC's SMD based on the PJM experience.
- Market coupling recommended as a second best but it requires adequate transmission system capacity.
- Recommended issuance of financial transmission contracts as in the North-eastern US markets such as PJM. Are FTC compatible with market coupling methods?
- Could combination of explicit auctioning for longer terms allocations and DAMC and even shorter terms (if intra day trade is needed) as in trilateral project (F-Be-NL) under development solve the problem?

# AVAILABILITY AND CONTROL OF INFORMATION

- Market-related information must be made available to all parties on a non-discriminatory basis and in a timely manner,
- Effective arrangements for the management of information held by network operators/market operators is critical in ensuring market confidence and successful unbundling,
- National legislations to be adapted if necessary.


# COMPATIBILITY OF WHOLESALE MARKET DESIGNS

Observation of wide range of national / regional arrangements: effect on cross border trade?

- Is a European SMD desirable?
- Who could promote / enforce it?
- What kind of design:
  - Pool (market power issues, with or without automatic bid mitigation mechanisms) or bilateral
  - Energy only or direct capacity incentive

# CONCLUSION

- A long way to the IEM
- Not only a regulatory issue
- Very much influenced by energy / environment policies (TGC system for example) and institutional arrangements
- Likely to be a try and test process
- Compatibility with investors trust



# **Discussion of Industry Restructuring, Market Power and Workable Competition**

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# SCOPE OF THE PAPER

## **In depth discussion of the concept of “workable competition”**

- Defined as *“a market yet generally free from monopolistic pricing and various forms of collusion and manipulation”*
- Competition is expected to be the main driver to improve efficiency in electricity supply.
- The paper does not cover the contribution of proper unbundling and incentive regulation of the residual natural monopoly segments of the industry, namely the networks operation.

# SPECIFICITY OF ELECTRICITY MARKETS

- There are **dynamic aspects** of the relevant market geographical extent and the need for specific definition of market power taking into account, the specific functioning of electricity markets.
- temporary local market power can appear due to specific grid conditions resulting from the bundle of **commercial agreements at various terms** and from the **technical operational rules** applied by generators and TSOs
- It results from these features of the electricity supply industry that the identification of market power problems requires specific measurement methods.

# THE COMPETITION DILEMMA IN ELECTRICITY

- Expected reduction of excessive spare capacity to bring efficiency gains in generation with regard to the previous situation but,
- likely to give more market power exercise opportunity to generators (not only major ones) endangering the realisation of these gains.
- Crucial role of the accuracy of the grid development and operation management is emphasised.

# MAIN MARKET POWER MITIGATION MEASURES

The paper recommends three kind of measures for wholesale markets.

- Two are clearly structural:
  - Splitting of major generators in one region and facilitation of the entry of competitors
  - Integration of two or more regions to benefit from gain from trade and economies of scale.
- Another one is rather a market design measure: Establishment of markets for forward contracts

# NORDIC RETURN OF EXPERIENCE 1

- Key factors of workable competition mentioned by the paper:
  - **Low degree of concentration:** good complementarity between the connected markets ? Interconnection capacity adequacy?
  - **Competition policy :** strong political will?
  - **Forward contracting:** contribution to market power mitigation is difficult to assess, but must be encouraged also because hedging and improvement of participants trust are probably more significant to increase market liquidity (if entries are possible).

# NORDIC RETURN OF EXPERIENCE 2

- Other key factors of workable competition mentioned by the paper:
  - **Market rules.** Well functioning markets require well informed participants. Nordic model has to be extended to other areas notably for inter regional trade fairness and efficiency reasons.
  - **Significant share of hydro power in the generation mix.** Future hydro production increases makes it difficult to successful market power exercise for high hydro power share generators. To what extent this argument could also be valid for other types of primary energy (eg nuclear plants)?

# MARKET POWER MITIGATION IN RETAIL MARKETS

The paper expresses that:

- retailers essentially provide financial services
- there are two major types of costs of retail competition:
  - cost of managing the information flows associated with keeping track of the consumption of the customers of each retailer.
  - cost of marketing that is associated with competition between retailers.

What about the appropriate share of consumer management tasks between retailers and distribution operators?

Criteria for the independance of distribution operators?