Cross Border Trade in Electricity: Experience of Wholesale Market Participants in Western Europe

Peter Styles, Chairman, EFET Electricity Committee
European Federation of Energy Traders

- Aims to facilitate and promote (wholesale) electricity and gas trading in Europe
- 60 members from 14 European countries
- Focus on continental markets in process of liberalisation
EFET Statement* on Energy Sector Liberalization

- Clear commitment and timetable
- Minimize any delay to full opening
- Open access across national boundaries
  - clear rules established by independent authorities
  - tariffs that reflect only identifiable costs
  - adherence to the principles of legal, management and accounts unbundling

*Press release on the occasion of the Pamplona Energy Ministers’ Meeting 26 April 2002
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1. Power trading: Background and obstacles
2. Cooperation across national borders
3. Cross border transmission capacity allocation
4. Conclusions for market reform

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Moscow 21 November 2003
Energy Trading is essential for successful market liberalization

- Price transparency and market signals
- Financial risk management
- Physical flexibility
- Innovation and efficiency improvements
- Enhanced security of supply
- Ensuring benefits reach all customers
Trading is not 'money making' alone!

- Captive markets are not efficient
  - No transparency nor competition
  - Dispatch at best based on internal merit order
  - Power transactions between few players
- Open markets allow for optimization
  - Freedom of choice of supplier leads to larger number of participants, transparency and liquidity
  - Trading primarily for portfolio optimization and risk management; only occasionally for 'speculative’ purposes
Trading contributes to efficient network management and investment

Traders enhance transparency and liquidity

- Price signals and transparency provide grid operators with a basis for network management
  - Congestion between price areas manageable by market-based allocation of interconnection capacity by grid operators; market can also trigger network investment
- Price discovery in both power as commodity and transport capacity supports market; facilitates risk management and portfolio optimization, thus best use of the grid

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Illustration of the developing EU electricity market

Electricity Interconnectors

HV Transmission

Hub

Independent Network Operators

LV Distribution

Demand management

Customer Choice

Residential

Competing Producers (including ancillary services)

Competing Suppliers

Local power

Market Prices at Trading Hubs

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The Traded Electricity Market in Europe

**UK**
- „NETA“ system
- UKPX - 44 participants
- Elexon - 179 BSC signatories

**APX**
- daily spot since May 1999
- within-day „adjustment market“
- 36 participants

**OMEL**
- compulsory pool
- 120 participants (2001)

**Norpool**
- physical and financial contracts
- hourly block contracts
- 295 participants

**EEX**
- spot and futures contracts
- 90 participants

**GME**
- day ahead, adjustment balancing, reserve and congestion markets.
- possible compulsory pool

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Unbundled TSOs can help create market transparency

EFET will suggest release of detailed data by TSOs:

• Aggregated hourly demand
• Physical network and capacity availability
• Harmonised generation output by fuel type
• Network and generation (?) maintenance schedules and availability expectations
Reservation Reduction and Netting

- Critical examination of long term supply contracts
- Minimisation of long term capacity reservation
- Financial resolution of “legacy” deals?
- Net counter flows to dominant flows
- Release capacity against expected loop flows

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Expected counter and loop flow netting

I = import country
E = export country
T = transit

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= dominant flow
= significant counter flow

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Market based mechanisms for the allocation of optimised capacity

- Explicit auctions may be based on unduly conservative ATC estimates
- Secondary trading of capacity on electricity systems is problematic
- Implicit auctions at border or other constraint points mimic dispatch procedures
- Alignment of commodity market with capacity allocation increases efficiency

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Implicit auction/market splitting: pre-conditions for implementation

- Publication of anticipated interconnection capacity by TSOs for every hour at intervals in advance
- Competition in generation both sides of interconnection
- Freedom to operate for a range of wholesale parties both sides of interconnection
- An electricity exchange or market operator both sides
- Balancing (intraday) markets or mechanisms and harmonisation of nominations both sides
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Conclusions (1)
Liberalization and market structure

• Rapid progression to 100% retail market opening
• Immediate explicit wholesale market opening
• Mandatory regulated TPA both wholesale and retail
• Full legal and functional unbundling of transmission
• Non-discriminatory balancing mechanisms/markets
• Transparency of information at wholesale level
Conclusions (2)
Cross border cooperation

- No import/export restrictions
- No transaction related cross border transmission tariffs
- Passported supply licenses, retail and wholesale
- Fully coordinated cross border congestion management using market based methods
- (Potentially) constrained transmission capacity to be ‘oversold’
- Arrangements to manage congestion away from borders
- Harmonized TSO nomination procedures, timing and blocks

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Conclusions (3)
Competitive landscape

- Disaggregation of existing enterprises, or abjuring industry consolidation
- Critical re-examination of any LT physical supply agreements and possible financial resolution
- Formation of single or JV PX to facilitate liquidity
- No State subsidization of fuel categories
- Ultimate merging of national TSOs into one RTO
- Full privatization ASAP (at least timetable set)?