



**European Commission
DG Energy and Transport**



Congestion management discussion paper

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Capacity Allocation methods



Retention

- Vertically integrated TSO uses the capacity

First come, first serve

- Capacity allocated as requested until finished

Curtailement (pro rata)

- If more demand than capacity, pro rata curtailement

Explicit auctioning

- Highest bidders get the capacity

Implicit auctioning

- Energy and capacity bid in a package

Market splitting

- An extension of implicit auctioning





Top 15 congested interconnectors in the EU

From	To	Capacity/ MW	Allocation method	Long term contracts	Congested
FR	CH	2600	First come-first serve	100%	always
CH	IT	2500	Retention/Pro rata	29%	always
FR	IT	2400	Pro rata	69%	always
CZ	AT	800	Auction	?	always
AT	SL	600	First come-first serve	?	always
SL	IT	350	First come-fs/Pro rata	?	always
AT	IT	200	First come-fs/Pro rata	100%	always
DE	NL	3800	Auction	34%	frequently
FR	DE	2350	First come-first serve	53%	frequently
PL/CZ	DE	2350	Auction	?	frequently
FR	UK	2000	Auction	no	frequently
FR	BE	1500	First come-fs/Pro rata	100%	frequently
DK-W	DE	1200	Auction	no	frequently
FR	ES	1200	First come-fs/Pro rata	45%	frequently
HU	AT	700	Auction	?	occasionally





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Co-ordination

- Co-ordination requirement
- Common base case
- Co-ordinated capacity allocation
- Same information to everybody



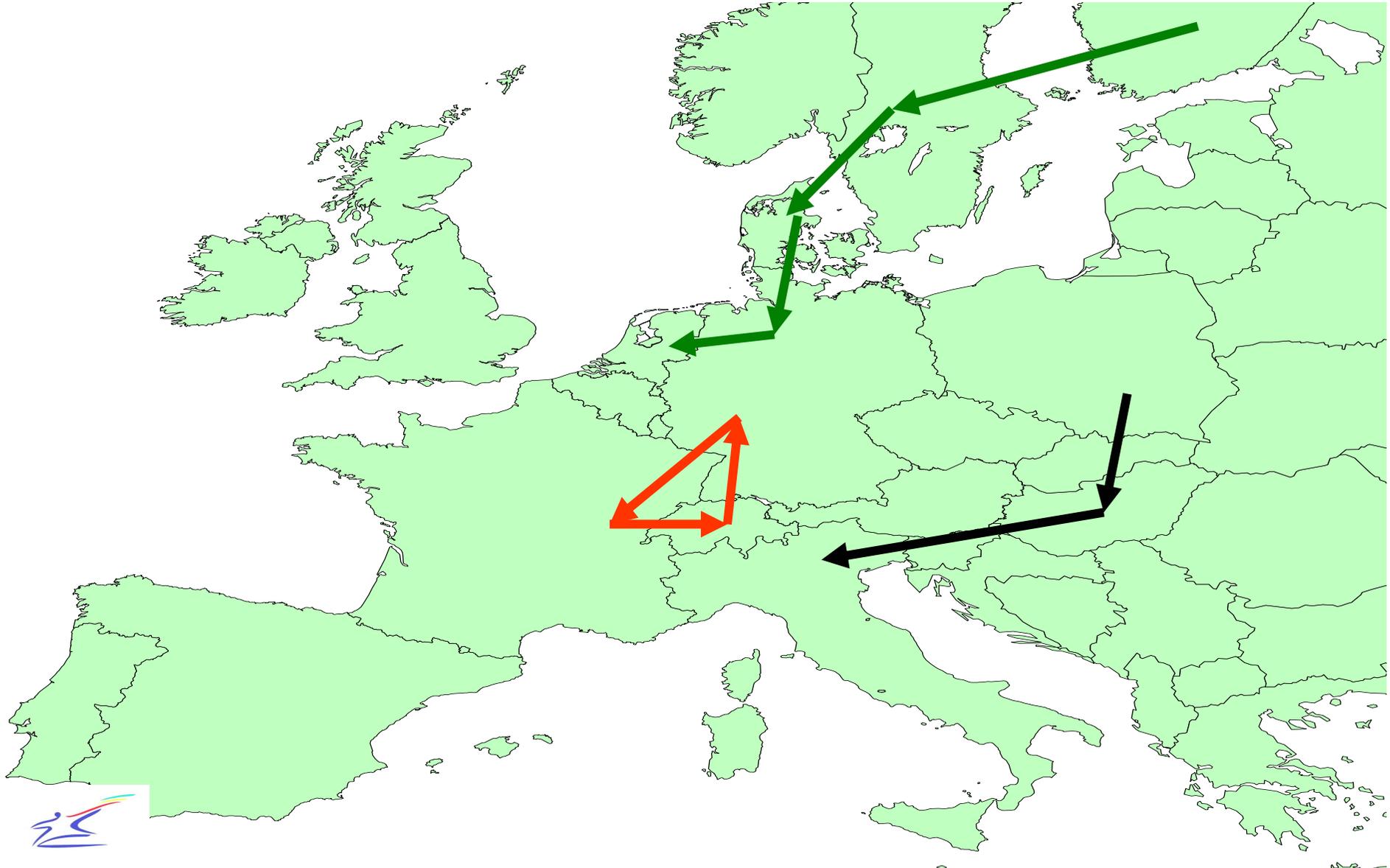
Maximising interconnection capacity

- No discrimination of interconnectors vs. internal lines
- Explicit consideration of internal constraints and loop flows
- Strict netting





Ring nominations possible, long contract paths exist





Capacity Allocation



Suggested Approach

- **Harmonised timetables for day-ahead spot market**
- **Capacity allocated earlier than d-1 has to be notified d-2**
- **Notified capacity falls under balancing obligation**





Possible time-table for capacity allocation



d-2 Notification by holders of long term, annual and monthly capacity

d-1 Day ahead

06.00 Final estimation and publication of ATC minus notified use (“leftover” capacity)

10.00 Bids into Power Exchanges

12.00 Solve for price without interconnection

14.00 Solve market with interconnectors [iteration between PXs and TSOs]

15.00 Day ahead prices

h-2 Final bids into intra-day market





Capacity Allocation

Strengthen transparency requirement

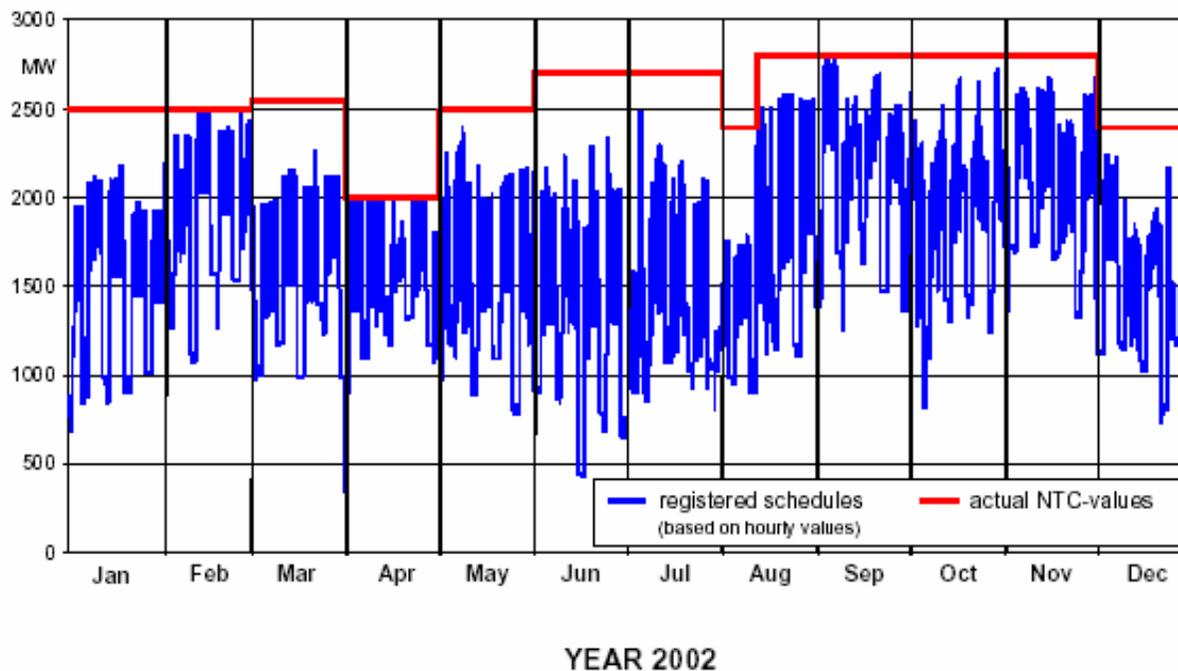


Figure 3: Official NTC values for the border CZ+PL to G and the recorded power exchange





Congestion charges



Suggested Approach

- **Congestion management charges should be actively used to relieve congestion**
- **Audit of revenues**





Conclusion



- **Proper congestion management is important for creating a liquid European electricity market**
- **Too many different congestion management methods are currently used, harmonisation is needed**
- **Co-ordination between TSOs and Power Exchanges is crucial, common “electricity-day” is necessary**

