



e-on PSE-Operator



VATTENFALL 

Coordinated Auctions in Czech Republic, Germany, Poland and Slovakia in 2006

CEPS, a.s.

E.ON Netz GmbH

PSE-Operator S.A.

Slovenská elektrizačná prenosová sústava, a.s.

Vattenfall Europe Transmission GmbH

Berlin, 21st of November 2005

AGENDA

- Principles - Coordinated Auctions for Congestion Management
- Coordination of Allocation Process
- Cross-Border Capacities Allocation Rules

Coordinated Auctions for Congestion Management

APPROACH

- Network limits are interdependent and affect several border profiles
- Market based method allows allocation of limited capacity according to the value placed by market participants
- Coordination
 - Capacity limits assessment
 - Common allocation procedure
 - Common administration of physical transmission rights

Coordinated Auctions for Congestion Management

ADVANTAGES

COORDINATED AUCTIONS PROVIDE

- Common transmission capacities allocation rules in the region
- Maximization of available transmission capacities with secure operation of each concerned transmission system
- Guarantee of transmission capacities allocated in Yearly, Monthly and Daily Auctions
- Short term capacity transfer (D-2 until 2:00 p.m.) for daily or hourly periods
- Basis for enhancement of capacity allocations in future

=> Implementation of Regulation (EC) 1228/2003

Coordinated Auctions for Congestion Management

TSO COOPERATION

- Methodology prepared together by CEPS, E.ON, ELES, MAVIR, PSE-Operator, SEPS, a.s., VE-T and Verbund-APG
- Common Auction Office; in 2006, Auction Office will be CEPS, located in Prague
- ELES, MAVIR, Verbund-APG will not take part in 2006
 - ⇒ Slovenia is partially exempted from the application of Regulation 1228/2003 until July 2007
 - ⇒ At present, Austrian and Hungarian Regulatory Authority cannot support the improved auctioning system for 2006.
- CEPS, E.ON, PSE-Operator, SEPS, a.s. and VE-T agreed to continue

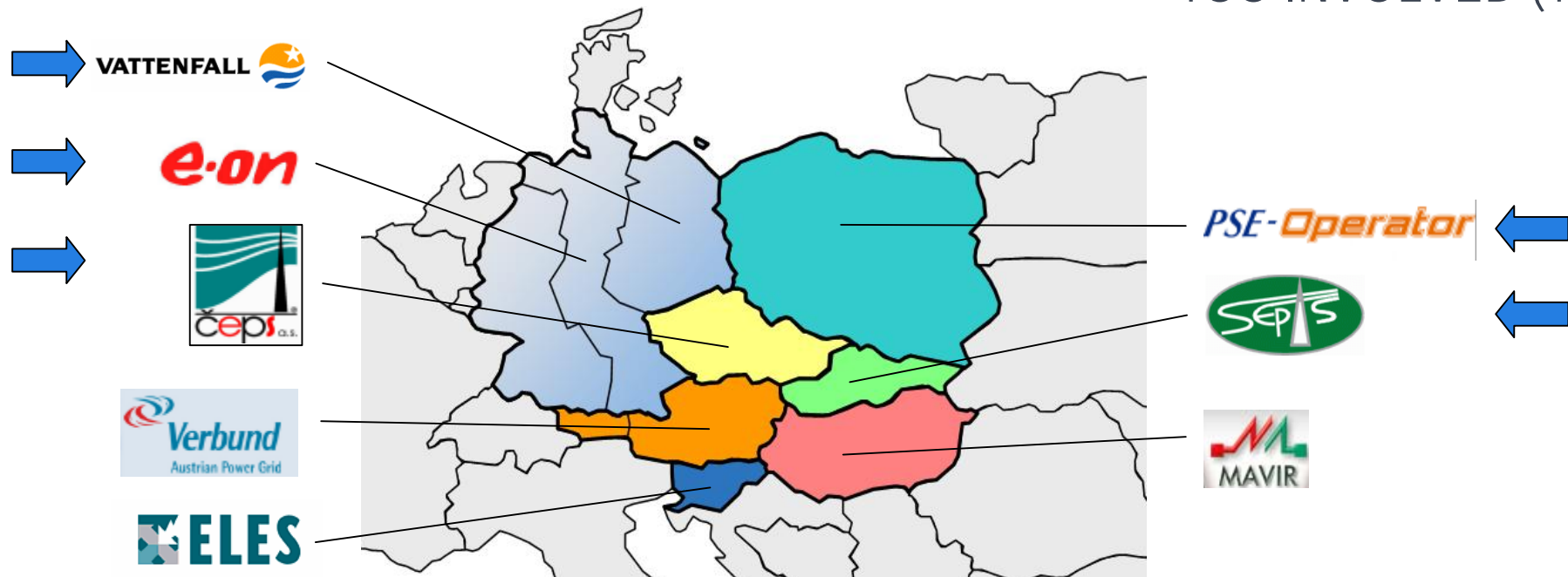
Coordinated Auctions for Congestion Management

REALIZED STEPS

- Common Auction Rules for 7 (8) TSOs in 6 (7) countries prepared in spite of several environmental differences (legal, technical, market structure/rules)
 - ⇒ ELES (Slovenia) from 2007
- Auction Rules presented to the Regulatory Authorities of the Central Eastern Europe (CEE) Region
- Public consultation procedure organized by the Regulatory Authorities
- Common position of the Regulatory Authorities presented to the TSOs
- Common position (reaction) of the TSOs presented to the Regulatory Authorities
- Requests of Regulatory Authorities have been included as far as possible**
- Final approval during the 2nd Follow-up meeting of CEE Mini-Forum on 8th November 2005 only by Czech, German, Polish and Slovakian Regulatory Authorities
- Adaptation of the prepared Auction Rules 2006 for participation of 5 TSOs only
- Publication of the Auction Rules 2006 on 10th November 2005 (start of registration procedure)
- Publication of the capacities for the Yearly Auction 2006 on 15th November 2005
- Yearly Auction 2006 on 29th November 2005

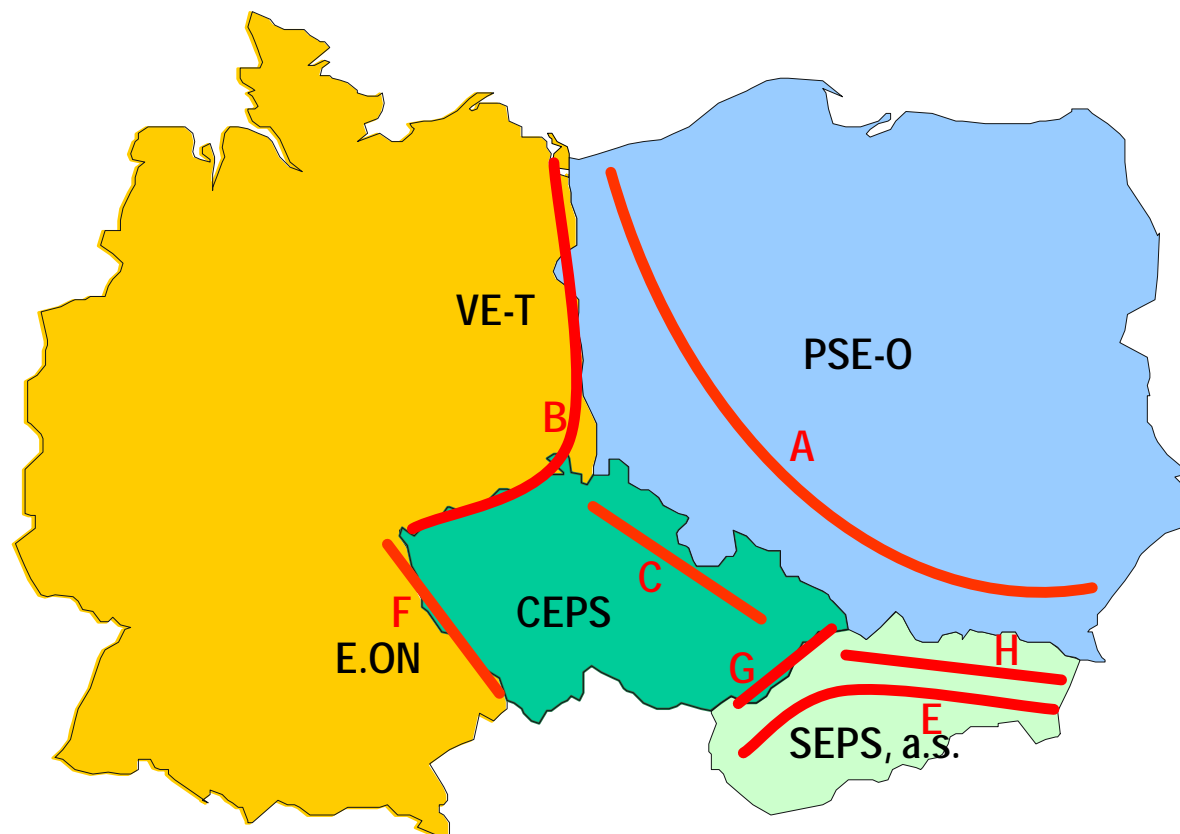
Coordinated Auctions for Congestion Management

TSO INVOLVED (1)



Coordinated Auctions for Congestion Management

TSO INVOLVED (2)



Coordination of Allocation Process

DEFINITIONS (1)

TECHNICAL PROFILE

Set of cross-border interconnectors and/or facilities having one common limit of offered capacity (determination by TSO)

id	profile
A	PSE-O – VE-T/CEPS/SEPS, a.s.
B	VE-T – PSE-O/CEPS
C	CEPS – PSE-O
E	SEPS, a.s. – CEPS/PSE-O
F	CEPS – E.ON
G	CEPS – SEPS, a.s.
H	PSE-O – SEPS, a.s.

Coordination of Allocation Process

DEFINITIONS (3)

COMMERCIAL PROFILE

Set of cross-border interconnectors linking two bordering national transmission networks (according to UCTE regulations, commercial electricity exchange has to be declared for individual commercial profile between two neighbouring Control Areas).

COMMERCIAL PROFILES IN ALLOCATION PROCESS

- CEPS – E.ON
- CEPS – PSE-O
- CEPS – SEPS, a.s.
- CEPS – VE-T
- PSE-O – VE-T
- PSE-O – SEPS, a.s.

Cross-Border Capacities Allocation Rules

PREREQUISITES – REGISTRATION

- Market players that are willing to take part in the capacities allocation process or in the transfer of allocated capacities have to register with auction office.
- With registration, they accept auction rules, i.e. the confirmation of Registration Form creates a contract between Auction Office and Auction Entity for 2006
- No further costs arise from registration.

Cross-Border Capacities Allocation Rules

PREREQUISITES – GUARANTEES

GUARANTEES

- High rating of indicated rating agencies (BBB + agencies...) **Y / M / –**
- Bank guarantee (issued by a bank with long-term credit rating) **Y / M / D**
- Deposit (to account of the Auction Office or to account of the Auction Entity in a bank chosen by the Auction Office) **Y / M / D**
- Promissory note (with aval of a bank with long-term credit rating) **Y / M / D**

Cross-Border Capacities Allocation Rules

BIDDING PROCESS

BIDS SUBMISSION PROCESS

- Bids are submitted to the Auction Office
- Submission in Yearly and Monthly Auctions: Initially, bids in closed envelopes with proper symbols and description
- Submission in Daily Auction: Bids placed via software system
- Bid content
 - ✓ participant identification data
 - ✓ cross-border capacities on indicated commercial profile to be reserved
 - ✓ offered reservation price
 - ✓ optional identification for Linked Bids to secure the reservation of capacity
 - on more Commercial Profiles in the same amount → Y / M / D
 - for groups of hours (e.g. peak, base, e.t.c.) → D

Cross-Border Capacities Allocation Rules

BIDDING RULES

BIDDING RULES

- Minimum capacity volume in individual bid 1 MW
- Maximum capacity volume in individual bid 50 MW
- Maximum number of bids placed by individual participant:
20 for each profile
- Prices in two bids placed by individual participant for the same commercial profile and direction must not be equal

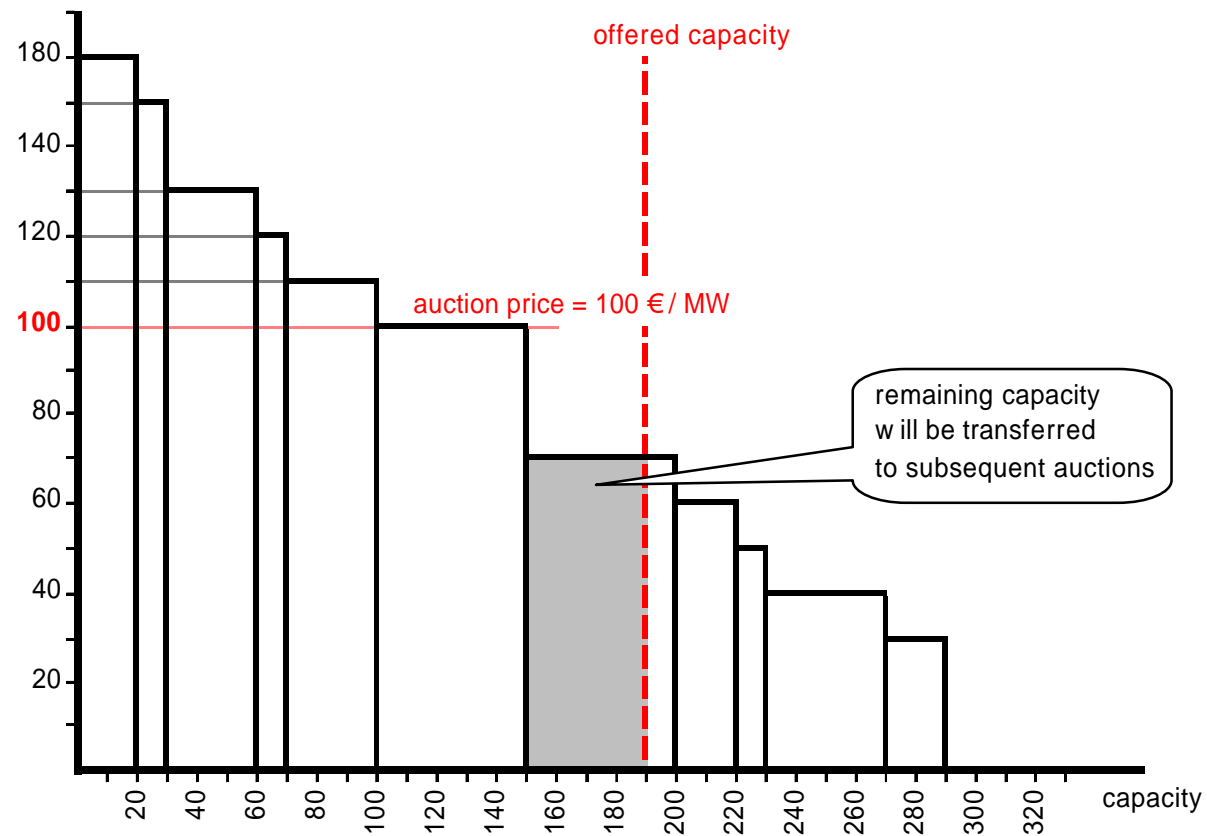
Cross-Border Capacities Allocation Rules

DETERMINATION OF AUCTION PRICE

- Limit is not exceeded
 - All bids are accepted
 - Auction price = 0 €/MW
- Limit is exceeded
 - Bids are accepted up to the limit
 - Auction price on all profiles related to the exceeded limit = bid price of the last accepted bid (all prices in €/MW)
 - If two limits are exceeded on one profile, auction price is determined by first exceeded limit

Cross-Border Capacities Allocation Rules

DETERMINATION OF AUCTION PRICE (PRINCIPLE)



Cross-Border Capacities Allocation Rules

MARGINAL BID RULE

YEARLY, MONTHLY AUCTIONS

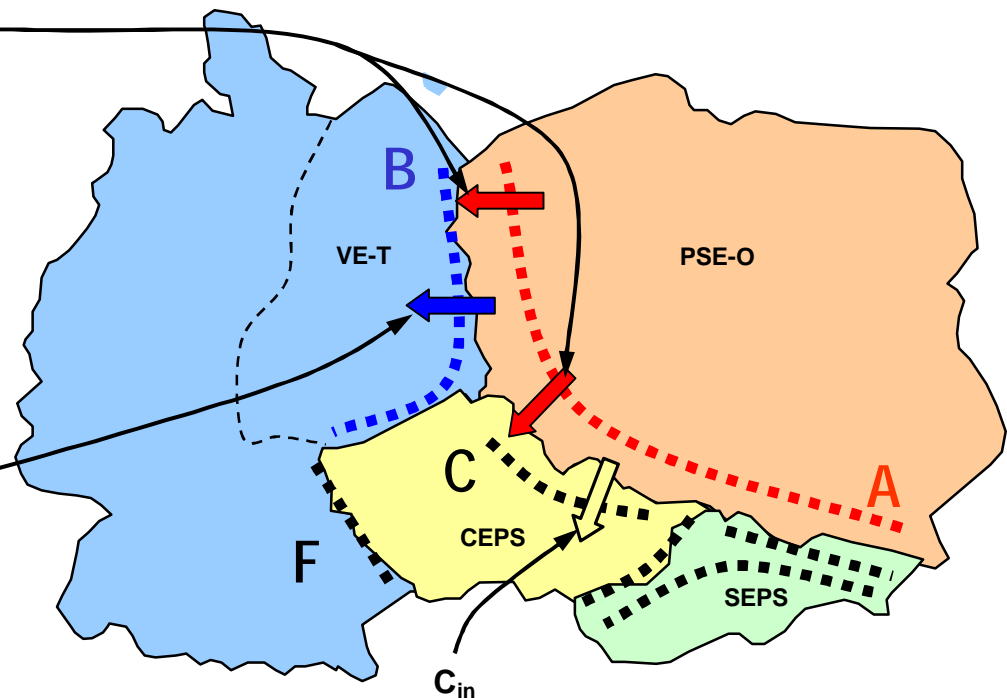
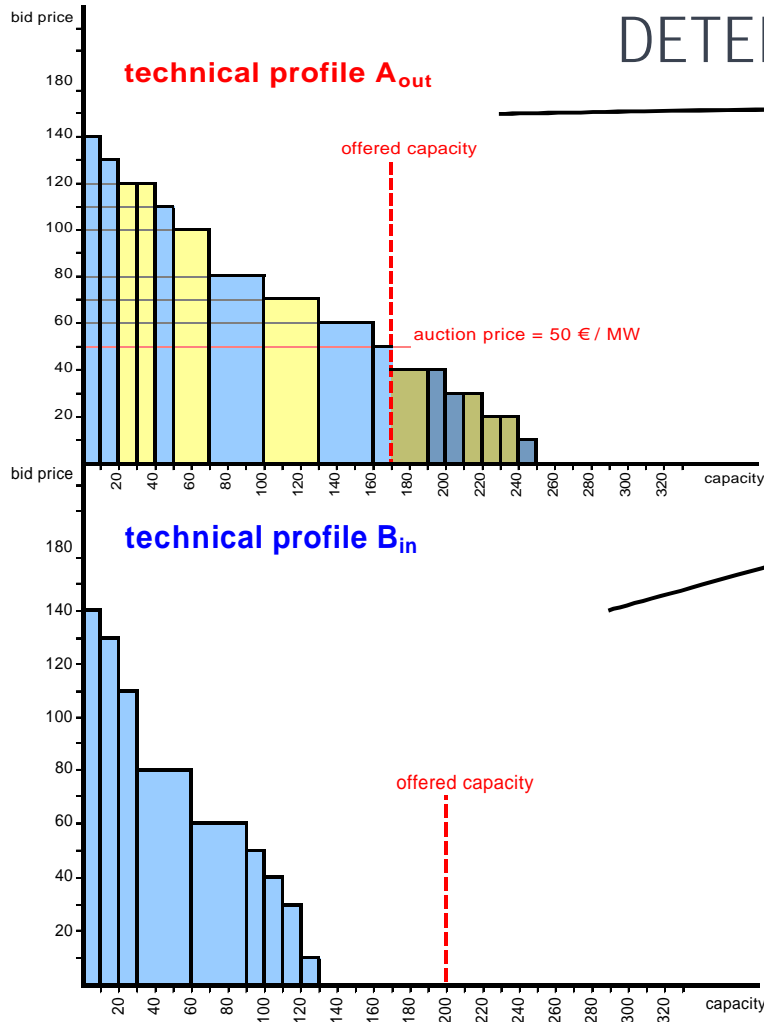
- Marginal bids exceeding capacity (two or more bids with same price) are removed
- Remaining capacity is allocated in subsequent auctions (yearly → monthly, monthly → daily)

DAILY AUCTION

- „First-Come-First-Serve“ principle used for marginal bids (bids with equal prices)
- Marginal bid can be cut (partially accepted) if marked as divisible in auction form

Cross-Border Capacities Allocation Rules

DETERMINATION OF AUCTION PRICE (EXAMPLE)



→ for simplification of example C_{in} will not be considered
commercial profile technical profile

bids "PSE-O to VE-T" affect A_{out} , B_{in}
 bids "PSE-O to CEPS" affect A_{out} , C_{in}

Cross-Border Capacities Allocation Rules

EXAMPLE - A

	DIRECTION		VALUE	BID	LIMIT	LIMIT	LIMIT
	from	to	MW	EUR/MW	A_{EX}	B_{IM}	C_{IM}
1	PSE-O	VE-T	50	3250	50	50	x
2	PSE-O	VE-T	45	1561	95	95	x
3	CEPS	VE-T	40	1306	x	135	x
4	PSE-O	CEPS	50	1114	145	x	50
5	PSE-O	SEPS	50	804	195	x	x
6	PSE-O	CEPS	25	727	220	x	75
7	PSE-O	CEPS	50	596	270	x	125
8	PSE-O	SEPS	45	479	315	x	x
9	PSE-O	SEPS	50	310	365	x	x
10	CEPS	VE-T	40	250	x	175	x
11	CEPS	VE-T	30	220	x	205	x
12	PSE-O	VE-T	10	100	x	x	x

CONDITIONS

$A_{EX} = 350$ MW, $B_{IM} = 200$ MW, $C_{IM} = 200$ MW

$A_{IM} = B_{EX} = C_{EX} = E_{IM} = E_{EX} = F_{IM} = F_{EX} = G_{IM} = G_{EX} = H_{IM} = H_{EX} =$ high limit

Bid no. 9 exceeds profile limit

$A_{EX} = 350$ MW (PSE-O – CEPS/SEPS/VE-T)

Bid no. 11 exceeds profile limit

$B_{IM} = 200$ MW (PSE-O/CEPS – VE-T)

Price on commercial profiles: PSE-O – CEPS , PSE-O – SEPS, PSE-O – VE-T is equal to 479 EUR/MW

Price on commercial profile: CEPS – VE-T is equal to 250 EUR/MW

for simplicity reasons, Limits E - H are not shown in this table

Cross-Border Capacities Allocation Rules

EXAMPLE - B

	DIRECTION		VALUE	BID	LIMIT	LIMIT	LIMIT
	from	to	MW	EUR/MW	A_{EX}	B_{IM}	C_{IM}
1	PSE-O	VE-T	50	3250	50	50	x
2	PSE-O	VE-T	50	3200	100	100	x
3	PSE-O	VE-T	45	1561	145	145	x
4	CEPS	VE-T	40	1306	x	195	x
5	PSE-O	CEPS	50	1114	195	x	50
6	PSE-O	SEPS	50	804	245	x	x
7	PSE-O	CEPS	25	727	270	x	75
8	PSE-O	SEPS	45	479	315	x	x
9	PSE-O	VE-T	50	310	365	245	x
10	PSE-O	VE-T	40	250	x	x	x

CONDITIONS

$A_{EX} = 350$ MW, $B_{IM} = 200$ MW, $C_{IM} = 200$ MW

$A_{IM} = B_{EX} = C_{EX} = E_{IM} = E_{EX} = F_{IM} = F_{EX} = G_{IM} = G_{EX} = H_{IM} = H_{EX} =$ high limit

Bid no. 9 exceeds simultaneously limits on profiles

$A_{EX} = 350$ MW (PSE-O – CEPS /SEPS/VE-T) and $B_{IM} = 200$ MW (PSE-O/CEPS – VE-T)

Price on commercial profiles: PSE-O – CEPS , PSE-O – SEPS, is equal to 479 EUR/MW

Price on commercial profiles: CEPS – VE-T, PSE-O – VE-T is equal to 1306 EUR/MW

for simplicity reasons, Limits E – H are not shown in this table

Cross-Border Capacities Allocation Rules

RESULTS

RESULTS

- Allocation of bilateral cross-border capacities
- Volume of cross-border transmission capacities
- Auction prices on particular commercial profiles

AUCTION PRICE

- Marginal price
(price of last accepted bid which does not exceed limit on technical profile)

PAYMENTS

- in advance (Yearly and Monthly Auction)
- following month (Daily Auction)
- all payments in €

Cross-Border Capacities Allocation Rules

TRANSFER AND SCHEDULING

TRANSFER

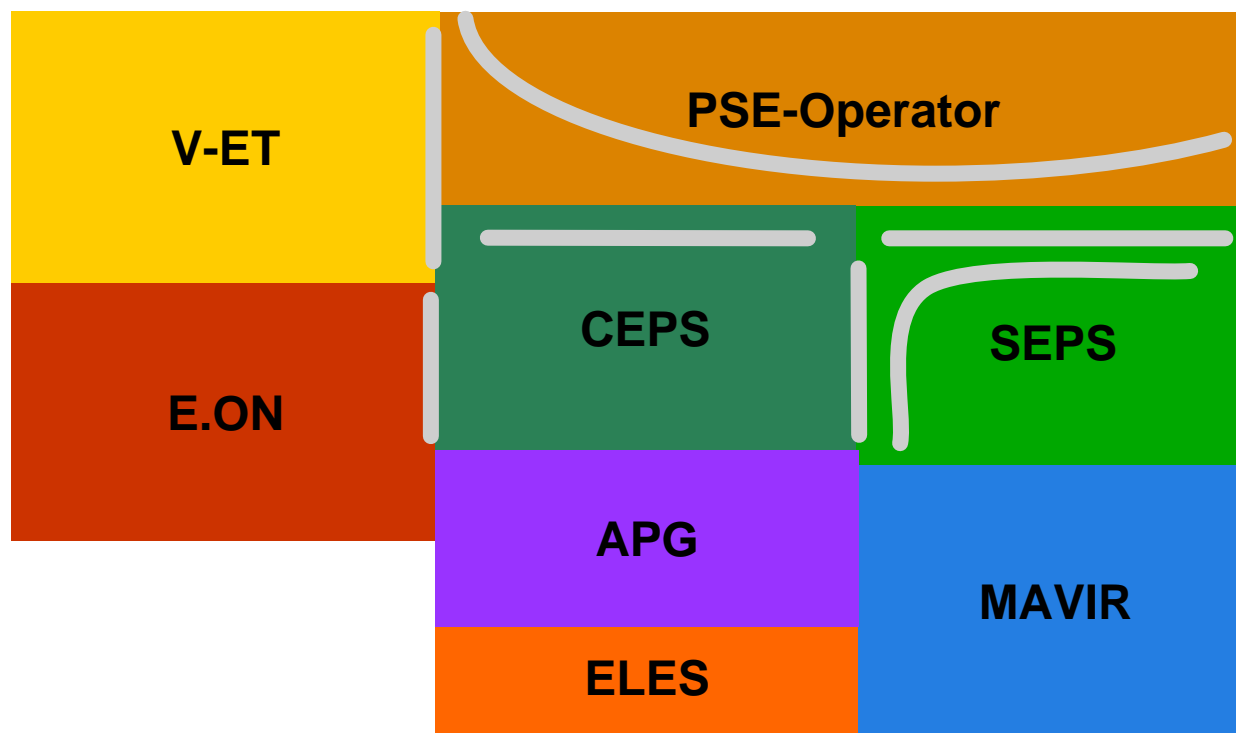
- Purchase and sale of reserved cross-border capacities on secondary market is allowed only if reserved capacities are already paid

1:1 NOMINATION / SCHEDULING

- The same party (basic approach) or exclusive commercial partners (pairs, advance approach) on both sides of the border
- One of them places joint schedules for given commercial profile to the responsible TSO

Cross-Border Capacities Allocation Rules

CONGESTION MANAGEMENT – PERSPECTIVE



TSOs are ready to continue the common work with MAVIR, APG and ELES on further development of coordinated auction system in Central Eastern Europe

Thank you for attention!