

MEMORANDUM

Between

JP "ELEKTROMREŽA SRBIJE"

Kneza Miloša 11,
11000 Beograd,
Serbia and Montenegro
(hereinafter „EMS“),

and

NATSIONALNA ELEKTRICHESKA KOMPANIA E.A.D

Veslets Str. 5
1040 Sofija
Bulgaria
(hereinafter "NEK")

for the period January 1st, 2006 - December 31st, 2006

(Both of which are hereinafter referred to as the "parties")

Whereas

- a. EMS in its role of Transmission System and Market Operator (TSMO) is responsible for the operation, maintenance and development of the Serbian transmission system and its interconnections with other systems in order to guarantee the security of supply at the standard level.
- b. NEK in its role of Transmission System Operator (TSO) is responsible for the operation, maintenance and development of the Bulgarian transmission system and its interconnections with other systems in order to guarantee the security of supply at the standard level.
- c. EMS and NEK agree to apply the ETSO and the UCTE rules and recommendations for cross-border power exchanges. EMS and NEK observe the European "Regulation No. 1228/2003 of the European Parliament and the Council as of 26 June 2003 on the Conditions for Access to the Network for Cross-Border Exchanges of Electricity"
- d. EMS and NEK provide common evaluation of the Available Transfer Capacity (ATC) between the power systems of Serbia and Bulgaria.

The parties to this Memorandum agree to the following:

1. The transfer capacity between the power systems of Serbia and Bulgaria for commercial contracting for the period January 1, 2006 (0:00 h CET) - December

31, 2006 (24:00 h CET) available yearly and for every month is presented in the Appendix 1, Table 1.

2. The use of the same interconnection interface by two partners will be taken into consideration and the total Net Transfer Capacity (NTC) will be divided between them equally (50%/50%).
3. The yearly NTC values shall be evaluated by EMS and NEK according to ETSO and UCTE methodologies. Both parties shall agree the maximum guaranteed NTC values (corresponding to the agreed coordinated maintenance plan and N-1 security criterion) for yearly allocation till the November 20th.
4. The monthly ATC values shall be calculated based on the actual operational conditions of the electrical power systems.
5. The monthly ATC values shall be evaluated by EMS and NEK by the 5th calendar day of the previous month and shall apply from the first calendar day of the month (0:00 h CET) till the last day of the month (24:00 h CET).
6. The following procedure for monthly ATC evaluation shall apply:
 - 15 days before the deadline for monthly ATC evaluation according article 5 the forecast models of Romanian, Serbian and Bulgarian electrical power systems are exchanged in UCTE format, including active reserves for increasing/decreasing of the generation, exchange programs and Already Allocated Capacity (AAC) of the parties and data about maintenance programs (beginning and end) for the investigated period.
 - 10 days before the deadline for monthly ATC evaluation according article 5 the calculation of Total Transfer Capacity (TTC) and NTC according to ETSO and UCTE rules is performed. Each party calculates the TTC values checking the n-1 criterion in its power system.
 - 2 days before the deadline for monthly ATC evaluation according article 5 the TTC, NTC and ATC values are exchanged by email and after discussion are harmonized. **If no agreement is reached about the NTC value – lower value is in force.**
 - The Transmission Reliability Margin (TRM) value at the border is agreed to be 100 MW in both directions.
7. In case of significant changes in the network topology, which cause transmission constraints, after consultation and by mutual agreement ATC values could be changed according to the results of weekly and daily operational planning.
8. The free capacity in both directions shall be allocated evenly half-and-half (50%/50%) by EMS under consideration of the Serbian laws and rules and by NEK under consideration of the Bulgarian laws and rules.
9. EMS and NEK shall fully accept the result of the individual allocation procedures held by the other party and shall carry out the transmission services according to the respective allocation results in compliance with the legal requirements of grid access, possible electricity import restrictions and applicable market rules.
10. EMS reserve the right to amend/or adapt the allocation rules according to the Serbian laws and rules. The actual version of Serbian Rules for capacity allocation shall be published on website of EMS - www.ems.co.yu.

11. NEK reserve the right to amend/or adapt the allocation rules according to the Bulgarian laws and rules. The actual version of Bulgarian Rules for capacity allocation shall be published on website of NEK - www.tso.bg.
12. EMS and NEK shall cooperate in investigation of the possibility for applying a common allocation procedure method for the next years in line with European regulation No. 1228/2003 and its guidelines.
13. The parties are obliged to inform each other on the results of capacity allocation or changes in capacity use not later than five working days before the beginning of the new capacity right use. Reserved capacity use right transfer or changes in capacity use can be made only for the whole next calendar week. Only contact persons listed below can sign the information exchange document (Appendix 2).
14. The contact persons and parties for the cross-border contracts are

EMS	NEK
Main: Mr. Predrag Savić System Operation Division Deputy Division Manager - Chief Dispatcher tel. +381 11 3970 299 fax. +381 11 3970 217 e-mail: predrag.savic@ems.co.yu	Main: Mr. Simeon Petchenikov Chief Dispatcher of NDC NEK-EAD tel. +359 2 988-59-35 fax. +359 2 981 01 02 e-mail: spechenikov@ndc.bg
Substitute: Mr. Branko Šumonja System Operation Division Head of planning department tel. +381 11 2492 192 fax. +381 11 3970 217 e-mail: branko.sumonja@ems.co.yu	Substitute: Mr. Plamen Gerdgikov Head of operation department tel. +395 2 981-54-15 fax. +359 2 981 01 02 e-mail: pgerdgikov@ndc.bg
Operating (0:00 a.m. – 12.00 p.m.) Dispatching Centre Tel: +381 11 3971 964 Fax: +381 11 3971 965 E-mail: koordinator@ems.co.yu	Operating (0:00 a.m. – 12.00 p.m.) Dispatching Centre Tel: +359 2 981 29 22: +359 2 986 24 72 Fax: +359 2 981 49 49 E-mail: cdubg@ndc.bg

The contact persons and parties for the transfer capability evaluation and data exchange are:

EMS	NEK
Mr. Branko Šumonja tel. +381 11 2492 192 fax. +381 11 3970 217 e-mail: branko.sumonja@ems.co.yu Mr. Aleksandar Kurćubić tel. +381 11 3975 771 fax. +381 11 3970 217 e-mail: aleksandar.kurcubic@ems.co.yu	Mr. Nenko Gamov Transmission Planning Department Tel:+359 2 981-69-42 fax. +359 2 981 01 02 e-mail: ngamov@ndc.bg Mr. Georgi Stoilov Head of power planning department Tel: +3592 980 40 84 Fax: +3592 981 01 02 e-mail: gstoilov@ndc.bg

15. The parties agree to inform each other in advance on any changes in the lists at the paragraph 14.
16. The cross-border exchanges between EMS and NEK will be summarized with regard to the comparison between them and total monthly ATC value. The sum of the cross-border exchanges in each single time period has to be less or equal to the ATC value.
17. In case of unexpected transmission constraints (congestion in respect of the total ATC value) the parties agree to reduce proportionally their respective programs of exchange. The reduction in the programs of exchange of each party has to correspond to its laws and rules.
18. The parties agree to inform each other immediately on any disconnection of transmission-components in their own grid, provided that these disconnections have an essential impact on the grid of the other party (in case of an unplanned disconnection promptly and in case of the planned disconnection till the fifth working day of the previous month).
19. The organisational procedure between EMS and NEK related to the scheduling and accounting activities shall be in conformity with the Policy 2 "Scheduling and Accounting" of the UCTE "Operational Handbook".

The contact persons and parties for the scheduling and accounting are:

EMS	NEK
Main: Mr. Srdjan Resevac tel. +381 11 2472 077 fax. +381 11 3970 217 e-mail: srdjan.resavac@ems.co.yu Substitute: Mrs. Svetlana Szege, Mrs. Jadranka Janjanin tel. +381 11 2472 077 fax. +381 11 3970 217 e-mail: svetlana.sege@ems.co.yu e-mail: jadranka.janjanin@ems.co.yu	Ms. Ljudmila Todorova, Mr. Julian Dimitrov, Mr. Cvetan Vazharov Tel:+ 359 2 981 8617 Fax:+359 2 981 0102 e-mail: tsoplan@ndc.bg

20. The provisions of this Memorandum could be amended by mutual agreement of the parties in order to follow any changes of their respective legislation.

For EMS:



For NEK:

Mitiu Hristozov
Manager of NDC

Mardik Papazyan
Executive Director



Appendix 1

EMS/NEK MEMORANDUM

For the period January 1, 2006 until December 31, 2006

Table 1 - Transfer Capacities

[MW]	Year 2006			
	TTC	TRM	NTC	AAC
EMS ⇒ NEK	500	100	400	0
NEK ⇒ EMS	800	100	700	0

[MW]	ATC	
	Yearly	Monthly
EMS ⇒ NEK	0	0-400
NEK ⇒ EMS	0	0-700

The Total Transfer Capacity (TTC), which is the possible maximum exchange programme between two areas compatible with operational security standards applicable at each system if future network conditions, generation and load patterns were perfectly known in advance.

The Transmission Reliability Margin (TRM) which is a security margin that copes with uncertainties on the computed TTC values arising from:

- Unintended deviations of physical flows during operation due to the physical functioning of load-frequency regulation
- Emergency exchanges between TSO's to cope with unexpected unbalanced situations in real time
- Inaccuracies, e. g. in data collection and measurements
- Uncertainties on the base case used for computation (this base case is a forecast of the power system state for a given time period in the future).

The Net Transfer Capacity (NTC), which is defined as:

$$NTC = TTC - TRM$$

NTC is the maximum exchange programme between two areas compatible with security standards applicable in both areas and taking into account the technical uncertainties on future network conditions.

The Already Allocated Capacity (AAC), that is the total amount of allocated transmission rights, whether they are capacity or exchange programmes depending on the allocation method.

The Available Transmission Capacity (ATC) that is the part of NTC that remains available, after each phase of the allocation procedure, for further commercial activity. ATC is given by the following equation:

$$ATC = NTC - AAC$$

Appendix 2

..... Division

TELEFAX MESSAGE

Addressee:	Ref.No.:
Position:	ID.No.:
Trade name:	Sender:
Fax number:	Fax number:
	Phone number:
	Pages: 1

Date:
Subject: Cross Border Capacity Rights allocated by
For

Dear Mr.,

According to the MEMORANDUM between our companies please be informed that the under mentioned Cross Border Capacities were allocated by Side and will be used for the month2006.

Direction: **Bulgaria- Serbia**

Name of the company	Execute capacity	Type of allocation Monthly
---------------------	------------------	-------------------------------

Total:

Direction: **Serbia - Bulgaria**

Name of the company	Execute capacity	Type of allocation Monthly
---------------------	------------------	-------------------------------

Total:

Sincerely Yours,

Name
Manager