	Observations
[1]	Limited by transformer with regulation in quadrature in Gronau
[2]	Limited by transformer with regulation in quadrature in Gronau
[3]	Transformer in Borssele
[4]	Transformer in Jamiolle
[5]	(220/150)
[6]	Installed in Verbois
[7]	(380/220)
[8]	Cross-border power station
[9]	(11/130)
[10]	Cross-border power station
[11]	(11/130)
[12]	Cross-border power station
[13]	(11/130)
[14]	Line property EnBW Netz in Germany Partially on the same tower as line Asphard-Kühmoos or Sierentz-Laufenburg
[15]	DC link with three connections
[16]	Transforming station of Lucciana in Corsica
[17]	DC link with three connections
[18]	Transforming station of Lucciana in Corsica
[19]	Partially on the same tower as the Laufenbourg-Engstlatt line (No. 105.1)
[20]	Transducer
[21]	Transducer
[22]	On the same tower as line No. 81 Laufenbourg-Sierentz 380 kV
[23]	Sag of conductor taken into consideration
[24]	From Kühmoos to Laufenbourg on the same tower
[25]	Disconnector
[26]	Limited by measuring transducer at Laufenbourg
[27]	From Kühmoos to Laufenbourg on the same tower
[28]	On the same tower as line Sierentz-Laufenburg
[29]	Limited by switching devices in Austria

T 9

Frontier point	Line	Circuit	Connection between: from substation			to substation		
			Country	Name	Operated by	Country	Name	Operated by
Nr.	Nr.	Nr.						
1	2	3	4	5	6	7	8	9
11	1	1	D	Diele	E.ON Netz	NL	Meeden	TenneT
11	2	1	D	Conneforde	E.ON Netz	NL	Meeden	TenneT
13	1	1	D	Siersdorf	RWE Net	NL	Maasbracht	TenneT
13	1	2	D	Rommerskirchen	RWE Net	NL	Maasbracht	TenneT
15	1	1	D	Gronau W	RWE Net	NL	Hengelo	TenneT
15	1	2	D	Gronau Z	RWE Net	NL	Hengelo	TenneT
25	1	1	B	Gramme	Elia	NL	Maasbracht	TenneT
25	1	2	B	Meerhout	Elia	NL	Maasbracht	TenneT
26	1	1	B	Zandvliet	Elia	NL	Geertruidenberg	TenneT
26	2	1	B	Zandvliet	Elia	NL	Borssele	TenneT
27	1	1	B	Maldegem	ELECTRABEL	NL	Oostburg	TenneT
41	1	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	1	2	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	2	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	3	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
51	1	1	B	Jamiolle	ELECTRABEL	F	Chooz	RTE
51	2	1	B	Avelgem	Elia	F	Avelin	RTE
51	3	1	B	Achène	Elia	F	Lonny	RTE
52	1	1	B	Aubange	ELECTRABEL	F	Moulaine	RTE
71	1	1	D	Uchtelfangen	RWE Net	F	Vigy	RTE
71	1	2	D	Uchtelfangen	RWE Net	F	Vigy	RTE
71	2	1	D	Ensdorf	RWE Net	F	St-Avold	RTE
72	1	1	D	Eichstetten	EnBW	F	Vogelgrün	RTE
72	1	2	D	Eichstetten	EnBW	F	Muhlbach	RTE
81	1	1	CH	Bassecourt	BKW	F	Sierentz	RTE
81	2	1	CH	Laufenburg	EGL	F	Sierentz	RTE
81	3	1	CH	Bassecourt	BKW	F	Mambelin	RTE
82	1	1	CH	Verbois	EOS	F	Bois-Tollot	RTE
82	1	2	CH	Chamoson	EOS	F	Bois-Tollot	RTE
82	2	1	CH	Verbois	EOS	F	Génissiat	RTE
82	2	2	CH	Verbois	EOS	F	Génissiat	RTE
82	3	1	CH	Verbois	EOS	F	Chancy-Pougny	SFM C-P
82	4	1	CH	La Bâtiaz	Atel	F	Vallorcine	RTE
82	5	1	CH	Riddes	EGL	F	Cornier	RTE
82	6	1	CH	St.-Triphon	EOS	F	Cornier	RTE
83	1	1 [14]	CH/D	Asphard	Atel/NOK /EnBW	F	Sierentz	RTE
91	1	1	F	Albertville	RTE	I	Rondissone	GRTN
91	1	2	F	Albertville	RTE	I	Rondissone	GRTN
92	1	1	F	Le Broc Carros	RTE	I	Camporosso	GRTN
93	1	1	F	Villarodin	RTE	I	Venaus	GRTN
94	1	1 [15]	F	Lucciana	RTE	I	Suvereto	GRTN
94	1	2 [17]	F	Lucciana	RTE	I	Suvereto	GRTN
102	1 [19]	1	CH	Laufenburg	EGL	D	Gurtweil	EnBW
102	1	2	CH	Laufenburg	EGL	D	Gurtweil	EnBW
102	2	1 [22]	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	3 [24]	1	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	3	2	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	4	1	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	4	2	CH	Laufenburg	EGL	D	Kühmoos	RWE Net
102	5 [27]	1	CH	Laufenburg	EGL	D	Tiengen	RWE Net
103	1	1	CH	Beznau	NOK	D	Tiengen	RWE Net
103	1	2	CH	Koblenz	NOK	D	Tiengen	RWE Net
103	1	3	CH	Klingnau	AWAG	D	Tiengen	RWE Net
104	1	1 [28]	CH	Asphard	Atel/NOK	D	Kühmoos	EnBW
105	1	1	CH	Laufenburg	EGL	D	Engstlatt	EnBW
111	1	1	A	Bürs	VIW	D	Obermooweiler	EnBW
111	1	2	A	Bürs	VIW	D	Obermooweiler	EnBW
111	2	1	A	Bürs	VIW	D	Herbertingen	RWE Net
111	3	1	A	Bürs	VIW	D	Dellmensingen	RWE Net
111	4	1	A	Rieden	VKW -ÜN	D	Lindau	VKW -ÜN
111	4	2	A	Hörbranz	VKW -ÜN	D	Lindau	VKW -ÜN
111	5	1	A	Vorderwald	VKW -ÜN	D	Weiler	VKW -ÜN

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial lines these are : ambient temperature of +35 °C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 7 or 8. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

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Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				of circuits		of lines	
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
kV	kV	MVA	MVA	MVA	kV	MVA	kV
10	11	12	13	14	15	16	17
	380		1382				
	380		1382				
	380		1645				
	380		1698				
	380		1790			1300 [1]	
	380		1790			1300 [2]	
	380		1207				
	380		1270				
	380		1476				
	380		1476	450 [3]			
	150		139				
	220		358				
	220		358				
	150		157	100			
	150		157	100			
	220		322	290	150 [4,5]		
	380		1207				
	380		1207				
	220		286				
	380		1167				
	380		1167				
	220		261				
380	220		338				
	380		1751				
	380		1186				
	380		1167				
	380		789				
	380		1211	800	220 [6,7]		
	380		1409	600			
	220		280				11 [8,9]
	220		280				11 [10,11]
	130		52	42			11 [12,13]
	220		275				
	220		275				
	220		275				
	380		1167				
	380		1150				
	380		1150				
	220		335				
	380		879				
	220 [16]		300			50	
	220 [18]		300			50	
	220		485	457[20]	220		
	220		485	457[21]	220		
	220		295[23]				
380	220		485	476 [25]	220		
	380		1620				
	380		1620				
	380		1580	1264 [26]			
	380		1158				
	380		1158				
380	220		335				
380	110		57	40			
	380		1340				
	380		1675				
	380		1369				
	380		1369				
380	220		389				
380	220		492	457 [29]			
	110		84				
	110		84				
	110		141				

	Observations
[30]	Cable at Braunau
[31]	Cable at Braunau
[32]	Normally no electricity exchange across this line/ electricity loop at pylon 32 open, circuit grounded
[33]	Transducer at Ering
[34]	Transducer at Ering
[35]	Isolator in St. Peter
[36]	Isolator in St. Peter
[37]	Normally no electricity exchange across this line
[38]	Line section national border-tower 62 owned by E.ON Netz
[39]	Normally no electricity exchange across this line
[40]	Line section national border-tower 62 owned by E.ON Netz
[41]	No international interconnector
[42]	CFT blocker at St. Peter
[43]	No international interconnector
[44]	CFT blocker at St. Peter
[45]	Switching device at Oberbrunn
[46]	Switching device at Oberbrunn
[47]	Possible to lay a second circuit
[48]	(130/150)
[49]	Possible to lay a second circuit
[50]	Limited by transformer
[51]	Limited by transformer
[52]	Transducer at Kassø
[53]	Transducer at Kassø
[54]	Monopol
[55]	DC submarine and underground cable
[56]	Limited by high-frequency coil
[57]	Generator line in radial operation - interconnected operation impossible
[58]	Installed at Vianden
[59]	Generator line in radial operation - interconnected operation impossible
[60]	Installed at Vianden
[61]	Generator line in radial operation - interconnected operation impossible
[62]	Installed at Vianden
[63]	Generator line in radial operation - interconnected operation impossible
[64]	Installed at Vianden
[65]	Limited by transformer
[66]	Limited by pumped storage power station at Bauler
[67]	520 MW in total because of the use of pumps in the power station of Vianden
[68]	520 MW in total because of the use of pumps in the power station of Vianden
[69]	The 400kV link between GR-I is composed of an overhead line and a submarine cable

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Frontier point	Line	Circuit	Connection between: from substation			to substation		
			Country	Name	Operated by	Country	Name	Operated by
Nr.	Nr.	Nr.						
1	2	3	4	5	6	7	8	9
115	1	1	A	Braunau	ÖBK	D	Neuötting	E.ON Netz
115	2	1	A	Braunau	ÖBK	D	Stammham	E.ON Netz
115	3	1	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz
115	3	2 [32]	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz
115	4	1	A	Antiesenhofen	Verbund - APG	D	Egglfing	BWK
115	5	1	A	St. Peter	Verbund - APG	D	Altheim	E.ON Netz
115	6	1	A	St. Peter	Verbund - APG	D	Simbach	E.ON Netz
115	7	1	A	St. Peter	Verbund - APG	D	Ering	E.ON Netz
115	7	2	A	St. Peter	Verbund - APG	D	Ering	E.ON Netz
115	8	1	A	St. Peter	Verbund - APG	D	Egglfing	BWK
115	9	1	A	St. Peter	Verbund - APG	D	Pirach	E.ON Netz
115	10	1	A	St. Peter	Verbund - APG	D	Pleinting	E.ON Netz
115	11	1	A	Ranna	EAGOÖ	D	Passau [37,38]	E.ON Netz
115	11	2	A	Ranna	EAGOÖ	D	Passau [39,40]	E.ON Netz
115	12	1	A	Oberaudorf	ÖBK	D	Rosenheim	E.ON Netz
115	13	1	A	Oberaudorf	ÖBK	D	Kiefersfelden	E.ON Netz
115	14	1	A	Antiesenhofen	EAGOÖ	D	Weidach	Thüga
115	14	2	A	Antiesenhofen	EAGOÖ	D	Weidach	Thüga
115	15	1	A	Aigerding	Verbund - APG/EAGOÖ	D	Passau	ÖBK
115	16 [41]	1	A	St. Peter	Verbund - APG	D	Schärding	ÖBK
115	16 [43]	2	A	St. Peter	Verbund - APG	D	Schärding	ÖBK
115	17	1	A	Kufstein	TIRAG	D	Oberaudorf	ÖBK
115	17	2	A	Ebbs	TIRAG	D	Oberaudorf	ÖBK
116	1	1	A	Westtirol	Verbund - APG	D	Leupolz	RWE Net
116	2	1	A	Westtirol	Verbund - APG	D	Memmingen	RWE Net
117	1	1	A	Silz	TIRAG	D	Oberbrunn	E.ON Netz
117	1	2	A	Silz	TIRAG	D	Oberbrunn	E.ON Netz
117	3	1	A	Reutte	TIRAG	D	Füssen	EW Reutte
117	3	2	A	Reutte	TIRAG	D	Füssen	EW Reutte
121	1	1	CH	Airolo	Atel	I	Ponte	GRTN
121	2	1	CH	Gorduno	Atel	I	Mese	GRTN
121	3	1	CH	Soazza	EGL	I	Bulciago	GRTN
121	4	1	CH	Lavorgo	Atel	I	Musignano	GRTN
122	1	1 [47]	CH	Campocologno	RE	I	Poschiavino	GRTN
122	2	1	CH	Robbia	RE	I	Sondrio	GRTN
123	1	1	CH	Riddes	EGL	I	Avise	GRTN
123	2	1	CH	Riddes	EGL	I	Valpelline	GRTN
123	3	1	CH	Mörel	RHOWAG	I	Pallanzeno	GRTN
132	1	1	A	Lienz	Verbund - APG	I	Soverzene	GRTN
141	1	1 [49]	A	Meiningen	VKW-ÜN	CH	Y-Rehag	NOK
142	1	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL
142	2	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL
151	1	1	E	Hernani	REE	F	Cantegrit	RTE
151	2	1	E	Irún	REE	F	Errondenia	RTE
151	3	1	E	Arkale	REE	F	Mouguerre	RTE
151	4	1	E	Biescas	REE	F	Pragnères	RTE
152	1	1	E	Benós	REE	F	Lac d'Oo	RTE
153	1	1	E	Vic	REE	F	Baixas	RTE
161	1	1	D	Flensburg	E.ON Netz	DK	Ensted	ELSAM
161	2	1	D	Flensburg	E.ON Netz	DK	Kassø	ELSAM
161	3	1	D	Audorf	E.ON Netz	DK	Kassø	ELSAM
161	3	2	D	Audorf	E.ON Netz	DK	Kassø	ELSAM
162	1 [54]	1	D	Bentwisch	VEAG	DK	Bjæverskov	ELKRAFT
171	1	1	A	Bisamberg	Verbund - APG	CZ	Sokolnice	CEPS
171	2	1	A	Bisamberg	Verbund - APG	CZ	Sokolnice	CEPS
172	1	1	A	Dürnrohr	Verbund - APG	CZ	Slavetice	CEPS
181	1	1	A	Obersielach	Verbund - APG	SLO	Podlog	ELES
182	1	1	A	Kainachtal	Verbund - APG	SLO	Maribor	ELES
182	2	1	A	Kainachtal	Verbund - APG	SLO	Maribor	ELES
191	1	1	D	Niederstedem	RWE Net	L	Vianden	SEO
191	2	1	D	Niederstedem	RWE Net	L	Vianden	SEO
191	2	2	D	Niederstedem	RWE Net	L	Vianden	SEO
191	3	1	D	Bauler	RWE Net	L	Vianden	SEO
191	4	1	D	Bauler	RWE Net	L	Flebour	CEGEDEL
191	4	2	D	Bauler	RWE Net	L	Roost	CEGEDEL
192	1	1	D	Trier	RWE Net	L	Heisdorf	CEGEDEL
192	2	1	D	Quint	RWE Net	L	Heisdorf	CEGEDEL
201	1	1	I	Redipuglia	GRTN	SLO	Divača	ELES
201	2	1	I	Padriciano	GRTN	SLO	Divača	ELES
205	1 [69]	1	I	Galatina	GRTN	GR	Arachthos	HTSO

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial lines these are : ambient temperature of +35 °C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 7 or 8. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

T 9

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				of circuits		of lines	
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
kV	kV	MVA	MVA	MVA	kV	MVA	kV
10	11	12	13	14	15	16	17
	110		102			82 [30]	
	110		102			82 [31]	
	110		90				
	110		90				
	110		102				
	220		301				
	220		301				
	110		152	137		114 [33]	
	110		152	137		114 [34]	
	110		105				
	220		518	457 [35]			
	220		518	457 [36]			
	110		90				
	110		90				
	110		93				
	110		102				
	110		130				
	110		130				
	110		102				
	220		301			229 [42]	
	220		301			229 [44]	
	110		90				
	110		127				
	380		1316				
380	220		762				
	220		793	762 [45]			
	220		793	762 [46]			
	110		127				
	110		127				
	220		257				
	220		257	250			
	380		1142				
	380		1118				
	150		103	55	130 [48]		
	220		257				
	220		290				
	220		290				
	220		257				
	220		257				
	220		501				
	380		1340				
	380		1340				
	380		1110				
	132		59				
	220		290				
	220		247				
	110		76				
	380		1331				
	220		332	305 [50]			
	220		332	305 [51]			
	380		1382	658 [52]			
	380		1382	658 [53]			
	400		600 [55]				
	220		269				
	220		269				
	400		1711	1386 [56]			
	220		351				
	380		1514	450			
	380		1514	450			
	220		730	460	220 [57,58]		
	220		365		220 [59,60]	345	
	220		365		220 [61,62]	345	
	220		730	460	220 [63,64]	345[65]	
	220		490	358[66]		520 [67]	
	220		490			520 [68]	
	220		490				
	220		490				
	380		1712				
	220		330				
	400		500				

	Observations
[70]	In Hungary 2 systems in parallel operation
[71]	DC submarine cable
[72]	DC submarine cable
[73]	Limited by the connected network
[74]	Nominal voltage in Croatia
[75]	Limited by the connected network
[76]	Nominal voltage in Croatia
[77]	Limited by the measuring transformer of current
[78]	Limited by the measuring transformer of current
[79]	Capacity of auto-transformer at Elbassan
[80]	Capacity of current transformers at Bistrica
[81]	Limitating installations in CZ
[82]	Limitating installations in CZ
[83]	Limited by circuit breaker VEAG
[84]	Limited by circuit breaker VEAG
[85]	Disconnected in Yugoslavia
[86]	Limeted by lower voltage
[87]	Limitation by measuring transducer
[88]	Destroied line
[89]	Destroied line
[90]	Out of operation
[91]	Destroied line and substation
[92]	Destroied line
[93]	Destroied line

T 9

Frontier point	Line	Circuit	Connection between: from substation			to substation		
			Country	Name	Operated by	Country	Name	Operated by
Nr.	Nr.	Nr.						
1	2	3	4	5	6	7	8	9
211	1	1	A	Wien Süd-Ost	Verbund - APG	H	Györ	MVM
211	1	2	A	Neusiedl	Verbund - APG	H	Györ	MVM
212	1	1 [70]	A	Wien Süd-Ost	Verbund - APG	H	Györ	MVM
221	1	1	F	Mandarins	RTE	GB	Sellindge	National Grid
221	2	1	F	Mandarins	RTE	GB	Sellindge	National Grid
231	1	1	E	Las Conchas	REE	P	Lindoso	REN
232	1	1	E	Aldeadávila	REE	P	Bemposta	REN
232	2	1	E	Aldeadávila	REE	P	Pocinho	REN
232	3	1	E	Saucelle	REE	P	Pocinho	REN
233	1	1	E	Cedillo	REE	P	Falagueira	REN
234	1	1	E	Cartelle	REE	P	Alto Lindoso	REN
241	1	1	FYROM	Dubrovo	ESM	GR	Thessaloniki	HTSO
242	1	1	FYROM	Bitola	ESM	GR	Amynteo	HTSO
245	1	1	CZ	Liskovec	CEPS	PL	Kopanina	PSE SA
246	1	1	CZ	Liskovec	CEPS	PL	Bujaków	PSE SA
251	1	1	H	Lenti	MVM	HR	Nedeljanec	HEP
251	2	1	H	Siklos	MVM	HR	Donji Miholjac	HEP
251	3	1	H	Héviz	MVM	HR	Tumbri	HEP
251	3	2	H	Héviz	MVM	HR	Tumbri	HEP
261	1	1	YU	Djerdap	EPS	RO	Portile de Fier	TRANSELECTRICA
261	2	1	YU	Sip	EPS	RO	Guravai	TRANSELECTRICA
262	1	1	YU	Kikinda 1	EPS	RO	Temisvar	TRANSELECTRICA
263	1	1	YU	Kusijak	EPS	RO	Ostrvo Mare	TRANSELECTRICA
270	1	1	CZ	Liskovec	CEPS	SK	Pov. Bystrica	SE
271	1	1	BG	Sofija Zapad	NEK	YU	Niš	EPS
272	1	1	BG	Breznik	NEK	YU	HE Vrla 1	EPS
273	1	1	BG	Kula	NEK	YU	Zaječar	EPS
280	1	1	CZ	Sokolnice	CEPS	SK	Senica	SE
281	1	1	AL	Vau i Dejës	KESH	YU	Podgorica	EP CG
282	1	1	AL	Fierza	KESH	YU	Prizren	EPS
291	1	1	AL	Elbassan	KESH	GR	Kardia	HTSO
292	1	1	AL	Bistrica	KESH	GR	Mourtos	HTSO
301	1	1	BG	Blagoevgrad	NEK	GR	Thessaloniki	HTSO
321	1	1	CZ	Hradec	CEPS	D	Etzenricht	E.ON Netz
321	1	2	CZ	Prestice	CEPS	D	Etzenricht	E.ON Netz
322	1	1	CZ	Hradec	CEPS	D	Röhrsdorf	VEAG
322	1	2	CZ	Hradec	CEPS	D	Röhrsdorf	VEAG
331	1	1	H	Sándorfalva	MVM	YU	Subotica 3	EPS
332	1	1	H	Szeged	MVM	YU	Subotica	EPS
341	1	1	BG	Petric	NEK	FYROM	Sušica	ESM
341	2	1	BG	Skakavica	NEK	FYROM	Kriva Palaka	ESM
351	1	1	HR	Melina	HEP	SLO	Divača	ELES
351	2	1	HR	Pehlin	HEP	SLO	Divača	ELES
351	3	1	HR	Buje	HEP	SLO	Koper	ELES
351	4	1	HR	Matulji	HEP	SLO	Ilirska Bistrica	ELES
352	1	1	HR	Tumbri	HEP	SLO	Krško	ELES
352	1	2	HR	Tumbri	HEP	SLO	Krško	ELES
352	2	1	HR	Mraclin	HEP	SLO	Cirkovce	ELES
352	3	1	HR	Nedeljanec	HEP	SLO	Formin	ELES
361	1	1	BiH	Mostar	JPCC	HR	Konjsko	HEP
361	2	1	BiH	Mostar	JPCC	HR	Zakučac	HEP
361	3	1	BiH	Grahovo	JPCC	HR	Knin	HEP
361	4	1	BiH	Buško Blato	JPCC	HR	Kraljevac	HEP
361	5	1	BiH	Buško Blato	JPCC	HR	Peruca	HEP
361	6	1	BiH	Grude	JPCC	HR	Imotski	HEP
361	7	1	BiH	Kulen Vakuf	JPCC	HR	Gracac	HEP
362	1	1	BiH	Jajce	JPCC	HR	Mraclin	HEP
362	2	1	BiH	Prijedor	JPCC	HR	Međurić	HEP
363	1	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP
363	2	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP
363	3	1	BiH	Čapljina	JPCC	HR	Opuzen	HEP
363	4	1	BiH	Neum	JPCC	HR	Opuzen	HEP
363	5	1	BiH	Neum	JPCC	HR	Ston	HEP
363	6	1	BiH	Trebinje	JPCC	HR	Komolac	HEP
364	1	1	BiH	Ugljevik	JPCC	HR	Ernestinovo	HEP
364	2	1	BiH	Gradačac	JPCC	HR	Đakovo	HEP
364	3	1	BiH	Tuzla	JPCC	HR	Đakovo	HEP
364	4	1	BiH	Bosanski Brod	JPCC	HR	Bjelis	HEP
364	5	1	BiH	Orasje	JPCC	HR	Županja	HEP

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial lines these are : ambient temperature of +35 °C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 7 or 8. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

T 9

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				of circuits		of lines	
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
kV	kV	MVA	MVA	MVA	kV	MVA	kV
10	11	12	13	14	15	16	17
	220		305				
	220		305				
	380		1514				
	270 [71]						
	270 [72]						
	132		105				
	220		200				
	220		200				
	220		268				
	380		790				
	380		1036				
	400		1300	700			
	150		120	100			
	400		400				
	400		400				
	120		82	50 [73]	110 [74]		
	120		114	50 [75]	110 [76]		
	400		1246				
	400		1246				
	380		1264				
	110		90				
	110		90				
	110		257				
	220		269		229[77]		
	380		1264				
	110		90				
	110		90				
	220		318		305 [78]		
	220		311				
	220		311				
	400		1300	250 [79]			
	150		120	40 [80]			
	400		1300	700			
	380		1639	1316 [81]			
	380		1645	1579 [82]			
	380		1476	1320 [83]		2630	
	380		1476	1320 [84]		2630	
	380		1246	1050			
	120		86 [85]				
	110		123				
	110		123				
	380		1264				
	220		366				
	110		89				
	110		53				
	380		1316				
	380		1316				
	220		297				
	110		115				
	400		1316	311 [86]	220		
	220		311				
	110		90				
	110		115				
	110		90				
	110		72				
	110		120	101 [87]			
	220		297[88]				
	220		297[89]				
	220		460[90]				
	220		460				
	110		84				
	110		84				
	110		76				
	110		84				
	400		831 [91]				
	220		229 [92]				
	220		229				
	110		115 [93]				
	110		76				

	Observations
[94]	Monopol
[95]	Temporarily limited by 380/110 kV transformer at Herrenwyk (456 MW towards south, 372/396 MW towards north)
[96]	Limited by the measuring transformer of current
[97]	Limited by the connections among equipments
[98]	Limited by the measuring transformer of current
[99]	Limited by the measuring transformer of current
[100]	Limitation by current transformer at Mikulowa
[101]	Limitation by current transformer at Mikulowa
[102]	Submarine cable
[103]	Limited by current transformer at Lemešany
[104]	Limited by current transformer at Lemešany
[105]	Out of operation/ substation local automatic equipment
[106]	Radial operation
[107]	Isolated operation
[108]	Submarine cable

T 9

Frontier point	Line	Circuit	Connection between:					
			from substation			to substation		
			Country	Name	Operated by	Country	Name	Operated by
Nr.	Nr.	Nr.						
1	2	3	4	5	6	7	8	9
371	1	1	HR	Ernestinovo	HEP	YU	Mladost	EPS
371	2	1	HR	Nijemci	HEP	YU	Šid	EPS
371	3	1	HR	Beli Manastir	HEP	YU	Apatin	EPS
381	1	1	BiH	Trebinje	JPCC	YU	Podgorica	EP CG
381	2	1	BiH	Trebinje	JPCC	YU	Peručica	EP CG
381	3	1	BiH	Trebinje	JPCC	YU	Herceg Novi	EP CG
381	4	1	BiH	Bileča	JPCC	YU	Vilusi	EP CG
382	1	1	BiH	Sarajevo 20	JPCC	YU	Piva	EP CG
382	2	1	BiH	Goražde	JPCC	YU	Pljevlja	EP CG
383	1	1	BiH	Višegrad	JPCC	YU	Požega	EPS
383	2	1	BiH	Bijeljina	JPCC	YU	Lešnica	EPS
383	3	1	BiH	Zvornik	JPCC	YU	HE Zvornik	EPS
383	4	1	BiH	Višegrad	JPCC	YU	Potpeć	EPS
391	1	1	FYROM	Skopje 1	ESM	YU	Kosovo A	EPS
391	2	1	FYROM	Skopje 1	ESM	YU	Kosovo A	EPS
391	3	1	FYROM	Skopje 4	ESM	YU	Kosovo B	EPS
401	1 [94]	1	D	Herrenwyk	E.ON Netz	S	Kruseberg	Sydkraft/Vattenfall
404	1	1	CZ	Nosovice	CEPS	SK	Varin	SE
424	1	1	CZ	Sokolnice	CEPS	SK	Krizovany	SE
440	1	1	SK	V.Kapusany	SE	UA	Mukacevo	UA
443	1	1	CZ	Albrechtice	CEPS	PL	Wielopole	PSE SA
444	1	1	CZ	Nošovice	CEPS	PL	Wielopole	PSE SA
497	1	1	CZ	Sokolnice	CEPS	SK	Stupava	SE
501	1	1	D	Vierraden	VEAG	PL	Krajnik	PSE SA
501	1	2	D	Vierraden	VEAG	PL	Krajnik	PSE SA
502	1	1	D	Hagenwerder	VEAG	PL	Mikulowa	PSE SA
502	1	2	D	Hagenwerder	VEAG	PL	Mikulowa	PSE SA
601	1 [102]	1	E	Pinar del Rey	REE	MA	Melloussa	ONE
700	1	1	PL	Krosno Iskrzynia	PSE SA	SK	Lemešany	SE
700	1	2	PL	Krosno Iskrzynia	PSE SA	SK	Lemešany	SE
701	1	1	PL	Rzeszów	PSE SA	UA	Chmielnicka	NDC
702	1	1	PL	Zamość	PSE SA	UA	Dobrotwor	Zachidenergo Lvov
703	1	1	PL	Bialystok	PSE SA	BY	Roś	Grodnoenergo
704	1	1	PL	Slupsk	PSE SA	S	Stärno	SvK
710	1	1	H	Györ	MVM	SK	Gabcikovo	SE
711	1	1	H	Göd	MVM	SK	Levice	SE
720	1	1	H	Albertirsa	MVM	UA	Zahidno Ukrainska	UEN
721	1	1	H	Sajószöged	MVM	UA	Mukacevo	UEN
722	1	1	H	Kisvárda	MVM	UA	Mukacevo	UEN
722	1	2	H	Tiszalök	MVM	UA	Mukacevo	UEN
730	1	1	H	Sándorfalva	MVM	RO	Arad	TRANSELECTRICA

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial lines these are : ambient temperature of +35 °C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 7 or 8. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

T 9

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				of circuits		of lines	
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
kV	kV	MVA	MVA	MVA	kV	MVA	kV
10	11	12	13	14	15	16	17
	380		831				
	110		76				
	110		78				
	380		1264				
	220		311				
	110		90				
	110		84				
	220		366				
	110		90				
	220		311				
	110		123				
	110		123				
	110		123				
	220		311				
	220		311				
	380		1264				
	450		600	372 [95]			
	400		1465	1386 [96]			
	400		1503	1323 [97]			
	400		1400	692 [98]			
	400		1212				
	400		1212				
	400		1711	692 [99]			
	220		196				
	220		196				
	380		1427	1385 [100]			
	380		1427	1385 [101]			
	380		730				
	400		1385	692 [103]			
	400		1385	692 [104]			
	750		2676	1300 [105]			
	220		168 [106]				
	220		154 [107]				
	450		600 [108]				
	400		1246	830			
	400		1246	830			
	750		4000	2146			
	400		1635	1385			
	220		275				
	220		275				
	400		1246				

Abbreviations used

BELGIQUE	ELIA	- Elia SA/NV
	ELECTRABEL	- ELECTRABEL S.A., Bruxelles
DEUTSCHLAND	E.ON Netz	- E.ON Netz, Bayreuth
	EnBW	- Energie Baden-Württemberg AG, Karlsruhe
	EW Reute	- Elektrizitätswerke Reute
	KWL	- Kraftwerk Laufenburg, Laufenburg
	ÖBK	- Österreichisch-Bayerische Kraftwerke AG, Simbach
	RWE Net	- RWE Net AG, Dortmund
	Thüga	- Thüga AG, München
	VEAG	- Vereinigte Energiewerke AG, Berlin
ESPAÑA	REE	- Red Eléctrica de España S.A., Madrid
FRANCE	RTE	- Gestionnaire du Réseau de Transport d'Electricité, Paris
HELLAS	HTSO	- Hellenic Transmission System Operator
ITALIA	GRTN	- Gestore della Rete di Trasmissione Nazionale S.p.A., Roma
SLOVENIJA	ELES	- Elektro-Slovenija, Ljubljana
HRVATSKA	HEP	- Hrvatska Elektroprivreda, Zagreb
S.R. JUGOSLAVIJA	EPCG	- Elektroprivreda Crne Gore, Niksic
	EPS	- Elektroprivreda Srbije, Beograd
FYROM	ESM	- Elektrostopanstvo na Makedonija, Skopje
BOSNA i HERCEGOVINA	JPCC	- Joint Power Coordination Center
LUXEMBOURG	CEGEDEL	- Compagnie Grand Ducale d'Electricité du Luxembourg, Luxembourg
	SEO	- Société Electrique de l'Our, Luxembourg
	SOTEL	- Société de Transport d'Energie Electrique du Grand-Duché de Luxembourg, Luxembourg
NEDERLAND	TenneT bV	- TenneT bV Transmission System Operator

ÖSTERREICH	EAGOÖ	- Energie AG Oberösterreich, Linz
	ÖBK	- Östereichisch Bayrische Kraftwerke
	TIRAG	- Tiroler Regelzone AG
	Verbund-APG	- Verbund - Austria Power Grid GmbH, Wien
	VIW	- Vorarlberger Illwerke AG, Bregenz
	VKW-ÜN	- Vorarlberger Kraftwerke Übertragungsnetz AG, Bregenz
PORTUGAL	REN	- Rede Eléctrica Nacional, S.A., Lisboa
SCHWEIZ	Atel	- Aare-Tessin AG für Elektrizität, Olten (Aar et Tessin Société Anonyme d'Electricité)
	AWAG	- Aarewerke AG, Aarau
	BKW	- BKW FMB Energie AG, Bern (BKW FMB Energie S.A.)
	EGL	- Elektrizitäts-Gesellschaft Laufenburg AG, Laufenburg (Electricité de Laufenbourg S.A.)
	EOS	- Energie Ouest Suisse S.A., Lausanne
	KWB	- Kraftwerke Brusio AG, Poschiavo (Forces Motrices de Brusio S.A.)
	NOK	- Nordostschweizerische Kraftwerke AG, Baden (Forces Motrices du Nord-Est de la Suisse)
	RHOWAG	- Rhonewerke AG, Visp
	SFM C-P	- Société des Forces Motrices de Chancy-Pougny, Chancy
	SIG	- Services Industriels de Genève, Genève
CESKA REPUBLIKA	CEPS	- CEPS a.s., Praha
MAGYARORSZÁG	MVM	- Magyar Villamos Müvek Tröszt, Budapest
POLSKA	PSE SA	- Polskie Sieci Elektroenergetyczne SA
SLOVENSKO	SE	- Slovenske elektrarne

BULGARIJA	ENERGOIMPEX	- Energoimpex Ltd, Sofia
	NEK	- National Electric Company A.S., Sofia
DANMARK	ELKRAFT	- ELKRAFT Power Company Ltd, Copenhagen
	ELSAM	- Det Jysk-Fynske Elsamarbejde, Fredericia
GREAT BRITAIN	National Grid	- The National Grid Company plc, London
MAROC	ONE	- Office National de l'Electricité, Casablanca
ROMANIA	TRANSELECTRICA	- Transelectrica S.A., National Power Grid Company, Bucaresti
SHQIPËRIA	KESH	- Albanian Electroenergetic Corporation
SVERIGE	SYDKRAFT	- Sydkraft AB, Malmö
	VATTENFALL	- Vattenfall AB, Stockholm
UKRAINA	UA	- Ukrenergo

	Circuit length (km)				Transformers 400kV → 220kV	
					in the network	
Country	220 kV	of which cable	400 kV	of which cable	Number	Capacity GVA
B	388	0	1476	0	6	2,1
D *	21010	35	18525	62	130	58,0
E	16179	114	15197	15	83	35,5
F	26108	824	20877	2	205	103,0
GR	8046	152	2597	160	35	9,3
I	12557	406	9761	9	50	20,1
SLO	328	0	510	0	3	1,2
HR	1224	0	1157	0	0	0,0
JIEL	2723	0	2143	0	12	4,8
L *	236	6	0	0	0	0,0
NL	683	6	2003	6,0	4	2,5
A *	3765	5	2474	56	17	10,8
P	2588	11	1235	0	6	2,7
CH	4988	20	1597	0	19	10,6
UCTE	**100435**	**1579**	**78076**	**0**	**564**	**258,5**
CZ	1904	0	3376	0	4	2,0
H *	1488	0	1956	0	3	1,5
PL	8116	0	4660	0	14	6,1
SK	962	0	1753	0	3	1,4
CENTREL	**12470**	**0**	**11745**	**0**	**24**	**11,0**
UCTE + CENTREL	**112905**	**1579**	**89821**	**0**	**588**	**269,5**

* Values as of December 31, 2000

Transformers 220kV → < 220kV				Transformers 400kV → < 220kV			
of power units		in the network		of power units		in the network	
Number	Capacity GVA	Number	Capacity GVA	Number	Capacity GVA	Number	Capacity GVA
3	0,8	17	2,7	14	8,4	24	11,8
111	31,0	562	104,0	100	62,0	177	50,0
155	18,6	506	48,3	56	22,5	31	11,8
267	31,0	1141	104,0	205	86,0	54	13,0
64	7,3	356	14,8	15	4,8	0	0,0
112	23,0	148	23,8	116	34,8	204	51,1
1	0,3	10	1,5	2	0,8	3	0,9
5	0,8	10	2,4	1	0,3	3	2,5
20	3,8	53	8,0	16	6,6	17	5,0
10	1,3	18	2,6	0	0,0	0	0,0
9	3,2	23	4,4	6	3,6	32	14,6
64	7,1	67	11,5	3	1,2	13	3,9
60	3,6	60	7,0	15	3,2	11	3,3
101	4,7	149	13,9	8	4,3	1	0,2
979	**135,6**	**3103**	**346,2**	**543**	**230,1**	**546**	**156,3**
5	1,1	20	4,0	33	11,3	40	10,7
n.a.	n.a.	26	4,2	n.a.	n.a.	20	4,2
60	13,7	106	17,0	25	8,4	34	9,1
8	1,5	13	2,6	20	4,1	18	4,7
74	**16,6**	**165**	**27,8**	**76**	**22,4**	**112**	**28,7**
1074	**16,6**	**3268**	**374,0**	**532**	**258,7**	**658**	**185,0**

	F	I	SLO	HR	JIEL	L	NL	A	P	CH	CZ	H	PL	SK
B	-					2	1							
	2					2	-							
	2					-	4							
D	-					-	-	22		1	-		-	
	2					8	-	9		5	-		2	
	4					-	6	3		7	4		2	
E	2								1					
	2								3					
	2								2					
F	-									1				
	3									5				
	3									5				
GR	-				1									
	-				-									
	1				1									
I	-							-		1				
	1							1		6				
	1							-		2				
SLO	3							-						
	2							1						
	3							2						
HR	2											2		
	7											-		
	3											2		
JIEL												1		
												-		
												1		
A										-	-	-		
										1	2	2		
										2	1	1		
CZ													-	-
													2	2
													2	3
H														-
														-
														2
PL														-
														-
														2

<220 kV
220 kV
380 kV

As of 31.12.2001

T12 Commissioning of new transmission installations

Country	Name of line	Designed for	Equipped for	Operated with
Deutschland	Hamborn - Niederrhein	2 x 380 kV	2 x 220 kV	2 x 220 kV
	Zukunft - Verlautenheide	2 x 380 kV	1 x 380 kV	1 x 380 kV
		2 x 110 kV	2 x 110 kV	2 x 110 kV
	Karnap - Rosenblumenhelle	2 x 380 kV	1 x 380 kV	1 x 380 kV
		2 x 110 kV	2 x 110 kV	2 x 110 kV
	Altenfeld - Remptendorf	2 x 380 kV	2 x 380 kV	2 x 380 kV
	Anschluss Zwönitz	2 x 380 kV	2 x 380 kV	2 x 380 kV
	Anschluss Bentwisch	2 x 380 kV	2 x 380 kV	2 x 380 kV
España	Aragón - Peñalba	2 x 400 kV	2 x 400 kV	2 x 400 kV
	Castejón - La Serna	2 x 400 kV	2 x 400 kV	2 x 400 kV
	Fuencarral - Galapagar[1]	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Fuencarral - San Sebastian de los Reyes[1]	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Olmedilla - Romica	2 x 400 kV	2 x 400 kV	2 x 400 kV
	Castrelo - Pazos	2 x 400 kV	2 x 400 kV	2 x 400 kV
	E/S en Juneda - L/Mangraners-Montblanc[2]	2 x 220 kV	2 x 220 kV	2 x 220 kV
	San Esteban - Parque Eólico del Sil-Meda[3]	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Trives - Parque Eólico del Sil-Meda[3]	1 x 220 kV	1 x 220 kV	1 x 220 kV
	E/S en Gurrea - L/Villanueva-Sabiñanigo I[4]	2 x 220 kV	2 x 220 kV	2 x 220 kV
	Bolarque - Trillo	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Lubián - San Agustín[5]	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Lubián - Puebla de Sanabria[5]	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Caparacena-Gabias/Atarfe-Guadame	2 x 220 kV	2 x 220 kV	2 x 220 kV
	Caparacena-Gabias	2 x 220 kV	2 x 220 kV	2 x 220 kV
	Mesón - Vimianzo	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Vimianzo - Mazaricos	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Hortaleza - Campo de las Naciones	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Campo de las Naciones - Canillejas	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Villaviciosa-(Corralón Casa de Campo)-Mazarredo	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Mazarredo - Cerro de la Plata	1 x 220 kV	1 x 220 kV	1 x 220 kV
	La Grela - Orzán	2 x 220 kV	2 x 220 kV	2 x 220 kV
	Cillamayor - Mataporquera[6]	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Mataporquera - Guardo[6]	1 x 220 kV	1 x 220 kV	1 x 220 kV
France	Chesnois - Serein[7]	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Gaudiere - Vich[8]	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Aube - Flers[9]	1 x 225 kV	1 x 225 kV	1 x 225 kV
	Nimes Talabot - Saint Cesaire	1 x 225 kV	1 x 225 kV	1 x 225 kV

T12	Commissioning of new transmission installations			
Hellas	Arachthos - Aheloos	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Arachthos - Trikala	1 x 400 kV	1 x 400 kV	1 x 400 kV
Italia	Galatina - Arachthos [10]	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Dolo - Villabona	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Villabona - Malcontenta	1 x 220 kV	1 x 220 kV	1 x 220 kV
	Marghera IV - Marghera I[11]	1 x 220 kV	1 x 220 kV	1 x 220 kV
Slovensko	Varin - Liptovska Mara	1 x 400 kV	1 x 400 kV	1 x 400 kV
	Horna Zdana - Sucany[12]	1 x 400 kV	1 x 400 kV	1 x 400 kV

[1] Galapagar - San Sebastian de los Reyes
[2] Mangraners - Montblanc
[3] San Esteban - Trives I
[4] Villanueva - Sabiñanigo I
[5] San Agustín - Puebla de Sanabria
[6] Mataporquera - Guardo
[7] Coupure á Villechetive
[8] Coupure á Baixas
[9] Coupure á Thiot
[10] Overhead line and DC submarine cable
[11] Cable
[12] Only the change of connecting into the substation, now Horna Zdana - Sucany, before Horna Zdana - L. Mara

Inventory										
	Conventional thermal units								Nuclear thermal units	
Country	10 MW ≤ x < 200 MW		200 MW ≤ x < 400 MW		≥ 400 MW		Total			
	Number	MW	Number	MW	Number	MW	Number	MW	Number	MW
B	79	3706	10	2950	3	1380	92	8036	7	5713
D	403	23572	66	20178	47	27749	516	71499	20	22246
E	251	7894	34	10695	10	5345	295	23934	9	7488
F	156	4906	31	7668	16	9640	203	22214	59	63183
GR	20	1891	16	4410	0	0	36	6301	0	0
I	1066	17532	64	18820	27	16196	1157	52548	0	0
SLO	2	267	1	312	1	662	4	1241	1	670
HR	14	1126	1	303	0	0	15	1429	0	0
JIEL	27	2585	11	3008	2	1160	40	6753	0	0
L *	0	0	0	0	0	0	0	0	0	0
NL	95	3887	19	5783	13	7367	127	17037	1	449
A *	0	0	0	0	0	0	0	0	0	0
P	19	1142	13	3712	0	0	32	4854	0	0
CH	16	273	0	0	0	0	16	273	5	3200
UCTE	**2148**	**68781**	**266**	**77839**	**119**	**69499**	**2533**	**216119**	**102**	**102949**
CZ	168	9552	0	0	1	460	169	10012	4	1637
H *	0	0	0	0	0	0	0	0	4	1769
PL	72	4314	8	1948	18	24379	98	30641	0	0
SK	24	2068	1	218	0	0	25	2286	6	2640
CENTREL	**264**	**15934**	**9**	**2166**	**19**	**24839**	**292**	**42939**	**14**	**6046**
UCTE + CENTREL	**2412**	**84715**	**275**	**80005**	**138**	**94338**	**2825**	**259058**	**116**	**108995**

* Values as of December 31, 1999

Country	Commissioning				Decommissioning			
	Tc		Tn		Tc		Tn	
	Number	MW	Number	MW	Number	MW	Number	MW
B	4	282	0	0	3	337	0	0
D	11	3171	0	67	4	461	0	0
E	58	1274	4	108	0	0	0	0
F	27	1265	0	0	2	678	0	0
GR	4	550	0	0	2	76	0	0
I	10	936	0	0	0	0	0	0
SLO	0	0	0	0	0	0	0	0
HR	1	200	0	0	0	0	0	0
JIEL	0	0	0	0	0	0	0	0
L*	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0
A*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P	0	0	0	0	1	47	0	0
CH	0	0	0	0	0	0	0	0
UCTE	**115**	**7678**	**4**	**175**	**12**	**1599**	**0**	**0**
CZ	1	17	0	0	0	0	0	0
H *	1	32	0	0	0	0	0	0
PL *	8	392	0	0	n.a.	n.a.	0	0
SK	0	0	1	440	0	0	0	0
CENTREL	**10**	**441**	**1**	**440**	**0**	**0**	**0**	**0**
UCTE + CENTREL	**125**	**8119**	**5**	**615**	**12**	**1599**	**0**	**0**

* Values as of the year 1999

Inventory of hydro power units										
	1 MW ≤ x < 10 MW		10 MW ≤ x < 50 MW		50 MW ≤ x < 100 MW		≥ 100 MW		**Total**	
Country	Number	MW	Number	MW	Number	MW	Number	MW	Number	MW
B	47	73	6	174	0	0	6	1164	59	1411
D	234	898	78	1648	14	1026	15	4841	341	8413
E	419	1381	124	2833	37	2485	40	10779	620	17478
F	232	991	172	4191	41	3027	58	16018	503	24227
GR	6	27	3	62	2	120	11	2881	22	3090
I	542	1795	231	5371	29	1913	39	10900	841	19979
SLO	2	18	8	222	5	296	2	242	17	778
HR	13	30	7	224	5	390	5	1431	30	2075
JIEL	6	45	20	1251	3	583	3	2014	32	3893
L *	3	20	1	11	0	0	1	1096	5	1127
NL	0	0	3	35	0	0	0	0	3	35
A *	161	475	99	2346	19	1389	26	6698	305	10908
P	12	45	14	310	6	421	15	3394	47	4170
CH	172	598	101	2442	39	2582	37	7493	349	13115
UCTE	**1849**	**6396**	**867**	**21120**	**200**	**14232**	**258**	**68951**	**3174**	**110699**
CZ	n.a.	n.a.	5	133	0	0	5	1696	10	1829
H *	9	44	0	0	0	0	0	0	9	44
PL	44	134	5	90	3	246	5	1670	57	2140
SK	29	179	36	734	10	820	6	734	81	2467
CENTREL	**82**	**357**	**46**	**957**	**13**	**1066**	**16**	**4100**	**157**	**6480**
UCTE + CENTREL	**1931**	**6753**	**913**	**22077**	**213**	**15298**	**274**	**73051**	**3331**	**117179**

* Values as of December 31, 1999

Country	Commissioning		Decommissioning	
	Number	MW	Number	MW
B	0	0	0	0
D	0	0	0	0
E	15	59	0	0
F	0	0	0	0
GR	0	0	0	0
I	29	268	5	325
SLO	0	0	0	0
HR	0	0	0	0
JIEL	0	0	0	0
L *	0	0	0	0
NL	0	0	0	0
A *	n.a.	n.a.	n.a.	n.a.
P	0	0	0	0
CH	1	1	0	0
UCTE	**45**	**328**	**5**	**325**
CZ	0	0	0	0
H *	0	0	0	0
PL *	0	0	0	0
SK	0	0	0	0
CENTREL	**0**	**0**	**0**	**0**
UCTE+ CENTREL	**45**	**328**	**5**	**325**

* Values as of the year 1999