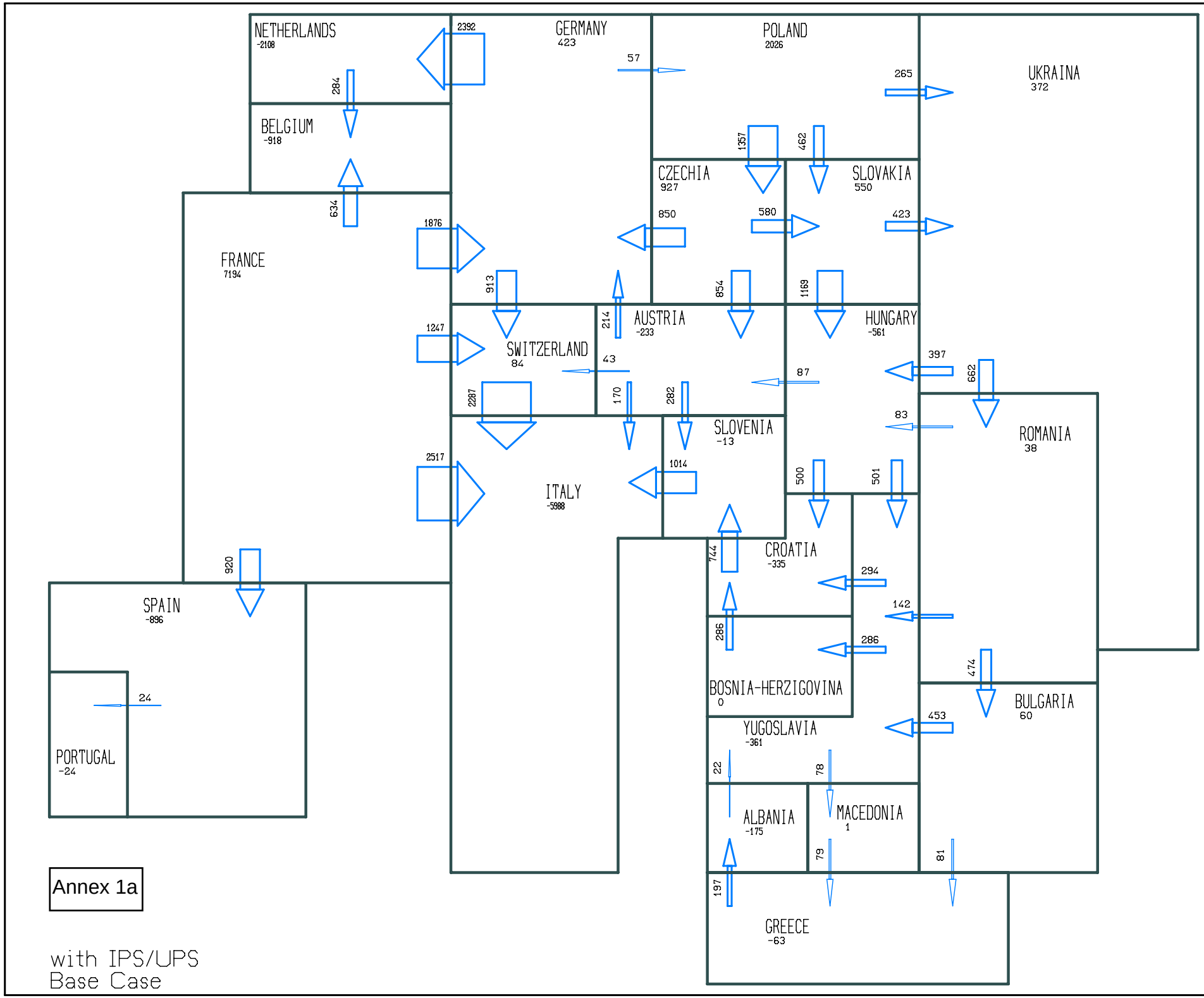
NETHERLANDS
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BELGIUM
-918
GERMANY
423
POLAND
2026
UKRAINA
372
CZECHIA
927
SLOVAKIA
550
FRANCE
7194
AUSTRIA
-233
HUNGARY
-561
SWITZERLAND
84
SLOVENIA
-13
ROMANIA
38
ITALY
-5988
CROATIA
-335
SPAIN
-896
BOSNIA-HERZIGOVINA
0
BULGARIA
60
YUGOSLAVIA
-361
PORTUGAL
-24
ALBANIA
-175
MACEDONIA
1
GREECE
-63
2392
284
57
265
1357
462
634
850
580
423
1876
913
854
1169
214
1247
43
87
397
662
2287
170
282
83
2517
1014
500
501
920
744
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286
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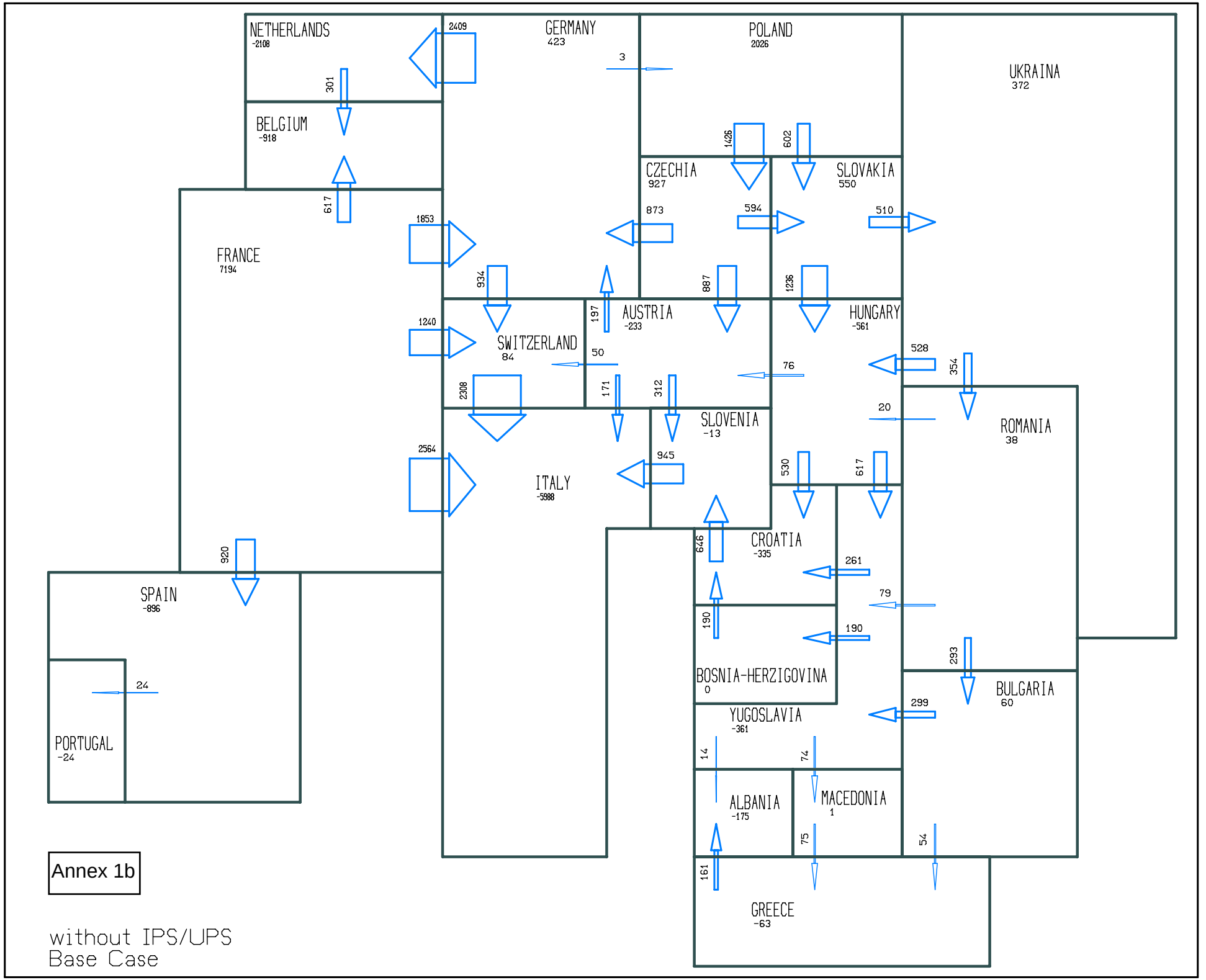
78
79
81
197
Annex 1a
with IPS/UPS
Base Case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POLAND
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301
BELGIUM
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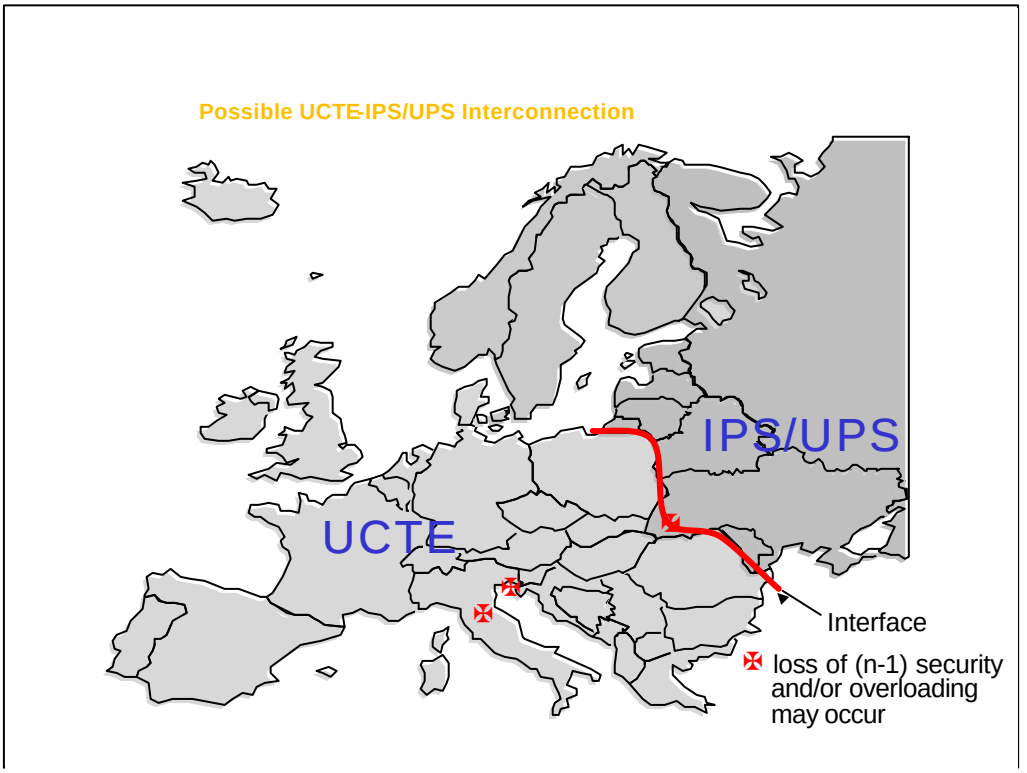
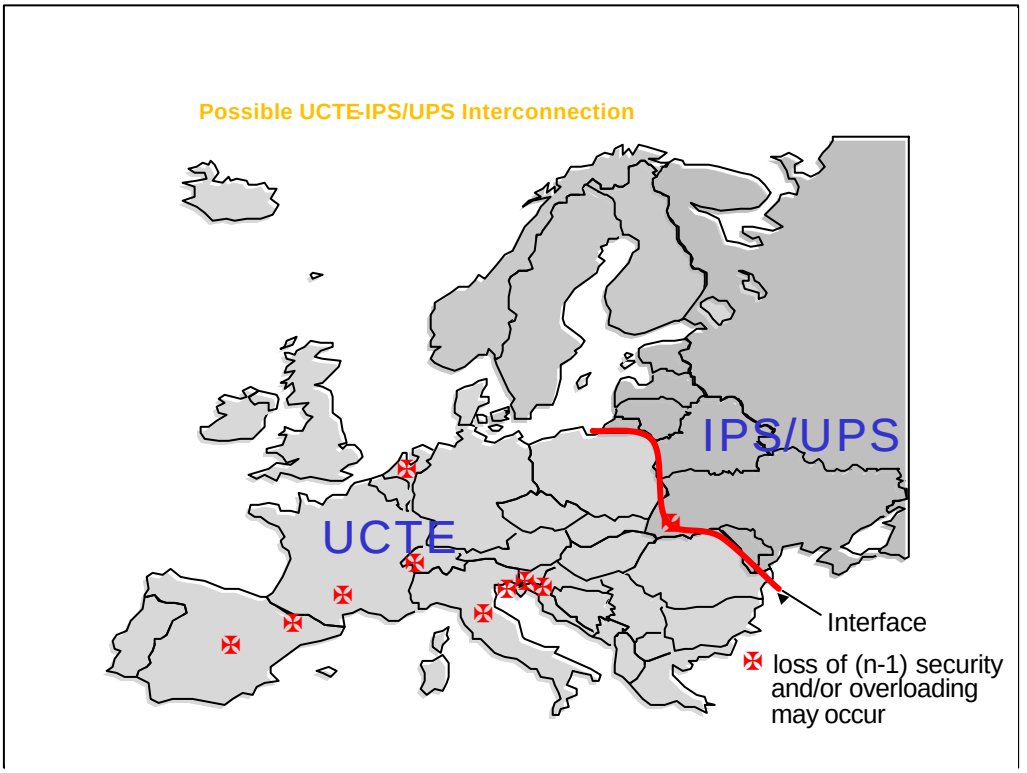
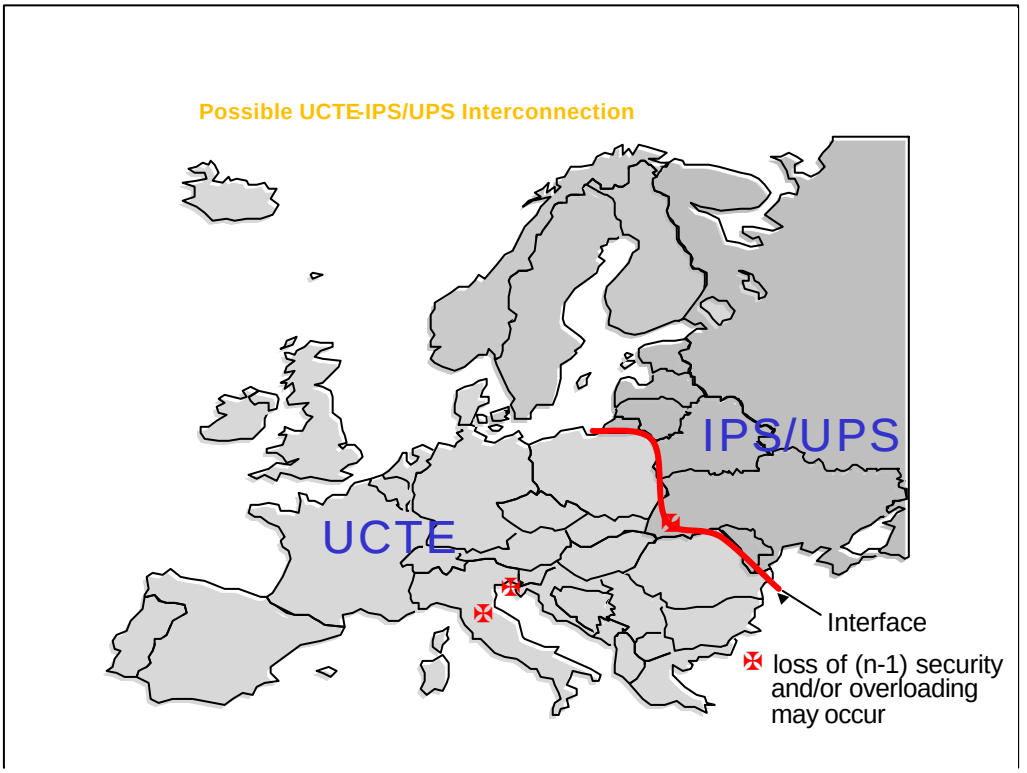
1426
602
CZECHIA
927
SLOVAKIA
550
617
873
594
510
1853
FRANCE
7194
934
887
1236
197
AUSTRIA
-233
HUNGARY
-561
1240
SWITZERLAND
84
50
76
528
354
2308
171
312
SLOVENIA
-13
20
ROMANIA
38
2564
945
530
617
ITALY
-5988
646
CROATIA
-335
261
920
79
SPAIN
-896
130
190
293
BOSNIA-HERZIGOVINA
0
BULGARIA
60
24
299
YUGOSLAVIA
-361
14
74
PORTUGAL
-24
ALBANIA
-175
MACEDONIA
1
75
54
161
GREECE
-63
Annex 1b
without IPS/UPS
Base Case



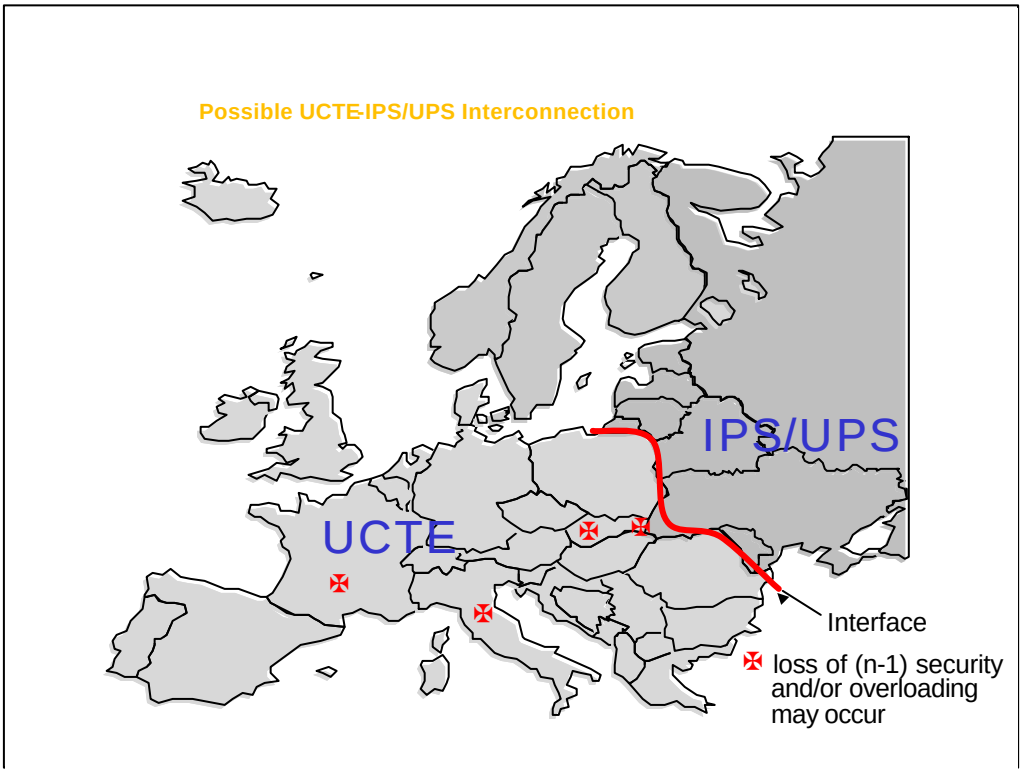

```
 930 MW: IPNEV121-ISLGV121,1
1204 MW: IPLNV111-IRDPV111,1
1428 MW: IRDPV111-LDIVAC1 ,1
1717 MW: U2BUR 2 -U2SZR 2 ,1
1717 MW: U2BUR 2 -U2SZR 2 ,2
1904 MW: IRDPV121-ISFAV121,1
```



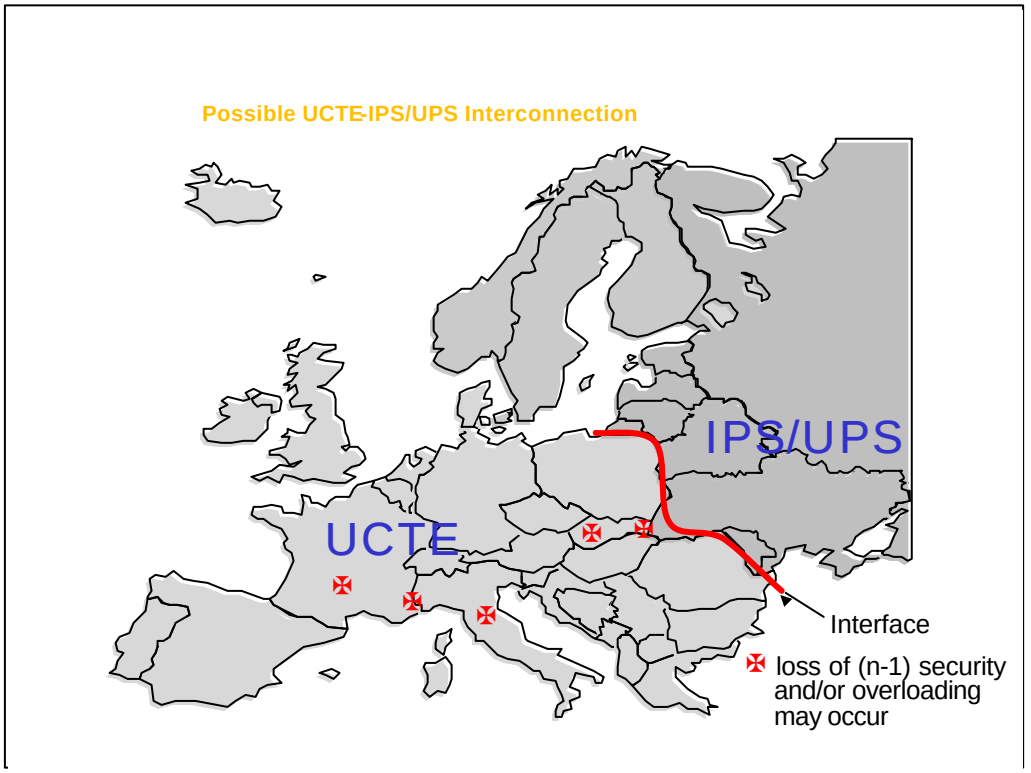

```
  60 MW: IBOVM111-IVERM111,1
 218 MW: IGORM111-IVERM111,1
 973 MW: IPLNV111-IRDPV111,1
1141 MW: IRDPV111-LDIVAC1 ,1
1249 MW: EBIESC21-ESABIN21,1
1269 MW: EBIESC21-FPRAGN21,1
1486 MW: IRDPV121-ISFAV121,1
1515 MW: NMEE-A1 -NPHDI 1 ,1
1657 MW: LDIVAC1 -LBERIC1 ,1
1676 MW: HMELIN1 -LDIVAC1 ,1
1694 MW: U2BUR 2 -U2SZR 2 ,1
1694 MW: U2BUR 2 -U2SZR 2 ,2
1725 MW: FCANTE21-FMOUGU21,1
1737 MW: LBERIC1 -LPODLO1 ,1
1821 MW: SSILS 1 -SSOAZZ1 ,1
1821 MW: FLANNE21-FPRAGN21,1
```



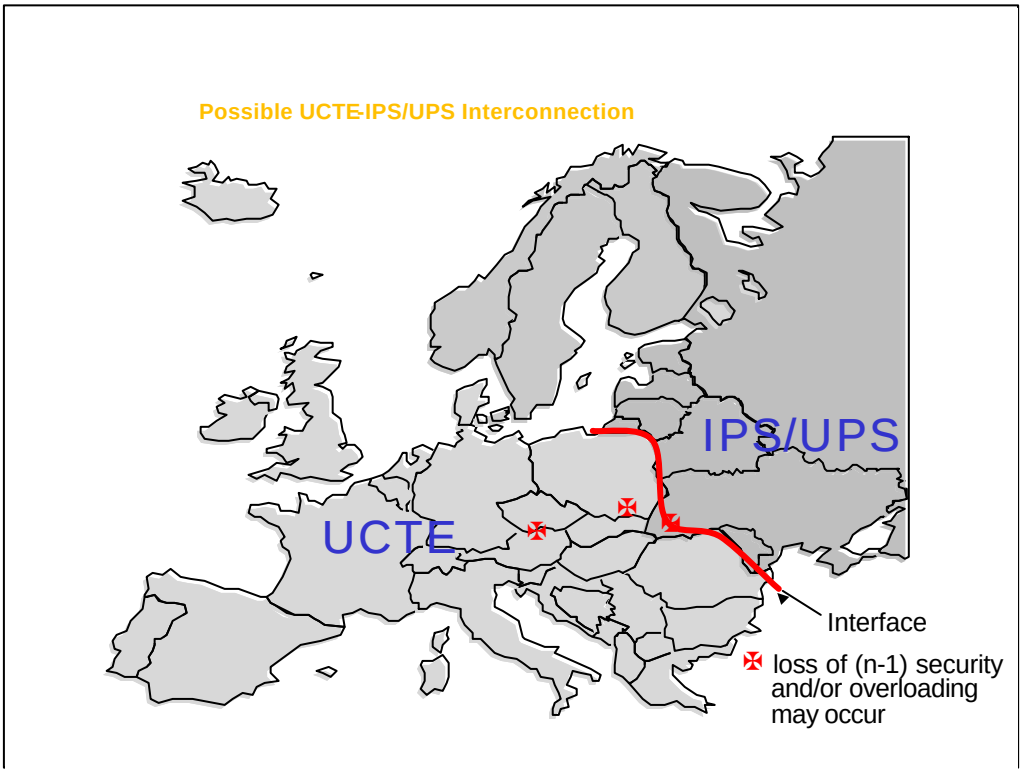

```
 944 MW: IPNEV121-ISLGV121,1
1214 MW: IPLNV111-IRDPV111,1
1450 MW: IRDPV111-LDIVAC1 ,1
1721 MW: U2BUR 2 -U2SZR 2 ,1
1721 MW: U2BUR 2 -U2SZR 2 ,2
1959 MW: IRDPV121-ISFAV121,1
```



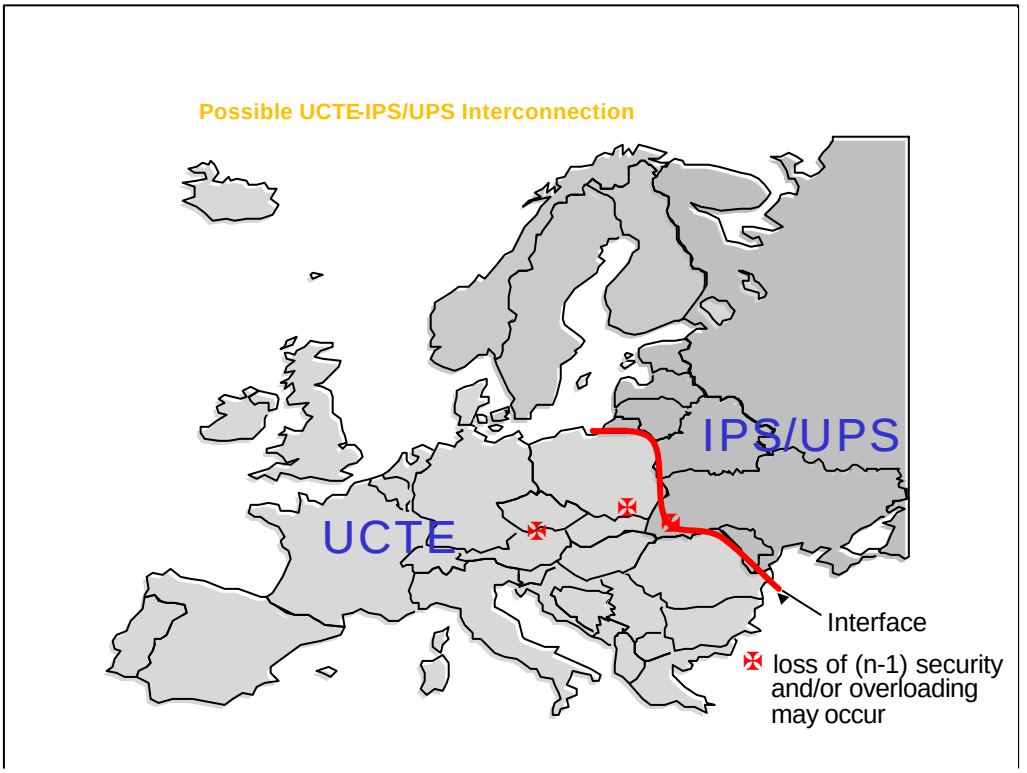

```
 228 MW: IGORM111-IVERM111,1
 823 MW: ICAOM111-ICRWM111,1
 939 MW: ICAOM111-ISROM111,1
1037 MW: IBOVM111-IVERM111,1
1291 MW: QLEVI_1 –QVDUR 12,2
1403 MW: QVKAP_1 – U1MUK 1,1
1527 MW: IBOVM111-IOSPM111,1
1569 MW: FCREYS11-FSSV.O11,1
1799 MW: ILCZM111-ISROM111,1
```




```
 169 MW: IGORM111-IVERM111,1
 368 MW: IPIOT111-IVNST111,1
 747 MW: IBOVM111-IVERM111,1
 763 MW: ICAOM111-ISROM111,1
 778 MW: ICAOM111-ICRWM111,1
1203 MW: QLEVI_1 –QVDUR 12,2
1242 MW: QVKAP_1 – U1MUK 1,1
1255 MW: FVLARO11-IVNST111,1
1371 MW: IBOVM111-IOSPM111,1
1373 MW: ILCZM111-ISROM111,1
1564 MW: FCREYS11-FSSV.O11,1
1649 MW: ICAGM111-IMUSM111,1
1982 MW: QLEVI_1 –QVDUR_11,1
```




```
1609 MW: ODUERN1 -C1SLA 1 ,1
1919 MW: U2BUR 2 -U2SZR 2 ,2
1919 MW: U2BUR 2 -U2SZR 2 ,1
1963 MW: ZKRI411 -ZRZE411 ,1
```




```
1591 MW: ODUERN1 -C1SLA 1 ,1
1885 MW: U2BUR 2 -U2SZR 2 ,2
1885 MW: U2BUR 2 -U2SZR 2 ,1
1962 MW: ZKRI411 -ZRZE411 ,1
```

distribution factors in %

Annex 3

	case 2 all	case 3 imp	case 4 exp	case 5 all	case 6 exp	case 7 BG	case 8 all
IPS-RO	24 %	24 %	22 %	-24 %	-22 %	44 %	42 %
IPS-PL	32 %	31 %	33 %	-32 %	-33 %	18 %	18 %
IPS-"BI"-H	30 %	31 %	30 %	-30 %	-30 %	25 %	26 %
CZ-SK	-28 %	-26 %	-30 %	28 %	30 %	-1 %	-1 %
CZ-D	27 %	29 %	28 %	-27 %	-28 %	3 %	3 %
D-NL	13 %	26 %	9 %	-13 %	-9 %	1 %	1 %
CR-SL	21 %	25 %	22 %	-21 %	-22 %	-10 %	-11 %
SL-I	18 %	23 %	17 %	-18 %	-17 %	-6 %	-6 %
PL-D	18 %	19 %	19 %	-18 %	-19 %	5 %	5 %
H-YU	1 %	1 %	0 %	-1 %	0 %	17 %	18 %
CR-BIH	-8 %	-9 %	-9 %	8 %	9 %	16 %	17 %
H-SK	14 %	12 %	17 %	-14 %	-17 %	-4 %	-4 %
D-A	-12 %	-10 %	-15 %	12 %	15 %	2 %	2 %
H-A	13 %	12 %	14 %	-13 %	-14 %	-1 %	-1 %
F-D	-14 %	-15 %	-13 %	14 %	13 %	-1 %	-1 %
BG-RO	-13 %	-14 %	-13 %	13 %	13 %	-24 %	-32 %
U-RO	0 %	0 %	-1 %	0 %	1 %	13 %	13 %
F-I	-9 %	-3 %	-12 %	9 %	12 %	2 %	2 %
CH-I	0 %	12 %	-5 %	0 %	5 %	4 %	4 %
H-CR	10 %	12 %	8 %	-10 %	-8 %	10 %	11 %
E-F	-11 %	-32 %	0 %	11 %	0 %	0 %	0 %
F-CH	-11 %	-10 %	-11 %	11 %	11 %	0 %	0 %
SK-"BI"	-9 %	-8 %	-10 %	9 %	10 %	3 %	3 %
B-NL	-10 %	-13 %	-9 %	10 %	9 %	-1 %	-1 %
CH-D	-9 %	-16 %	-6 %	9 %	6 %	-3 %	-3 %
YU-AL	-2 %	-1 %	-3 %	2 %	3 %	6 %	9 %
YU-BIH	9 %	9 %	9 %	-9 %	-9 %	-16 %	-16 %
F-B	-7 %	-4 %	-9 %	7 %	9 %	-1 %	-1 %
PL-SK	6 %	6 %	5 %	-6 %	-5 %	8 %	8 %
BG-YU	6 %	7 %	6 %	-6 %	-6 %	-28 %	-5 %
AL-GR	-2 %	-2 %	-3 %	2 %	3 %	6 %	6 %
RO-YU	5 %	5 %	5 %	-5 %	-5 %	0 %	3 %
BG-GR	2 %	4 %	2 %	-2 %	-2 %	-5 %	5 %
YU-MKD	-1 %	0 %	-1 %	1 %	1 %	4 %	5 %
SL-A	4 %	2 %	5 %	-4 %	-5 %	-5 %	-5 %
H-U	-5 %	-6 %	-5 %	5 %	5 %	-2 %	-3 %
CR-YU	-5 %	-6 %	-5 %	5 %	5 %	5 %	5 %
H-RO	-4 %	-4 %	-4 %	4 %	4 %	5 %	4 %
CZ-PL	-4 %	-6 %	-4 %	4 %	4 %	-5 %	-6 %
BG-MKD	2 %	4 %	2 %	-2 %	-2 %	-5 %	4 %
CH-A	-4 %	-6 %	-3 %	4 %	3 %	-1 %	-1 %
CZ-A	1 %	3 %	-1 %	-1 %	1 %	4 %	4 %
E-P	2 %	0 %	0 %	-2 %	0 %	0 %	0 %
GR-MKD	-1 %	-3 %	-1 %	1 %	1 %	1 %	-7 %
A-I	0 %	0 %	0 %	0 %	0 %	0 %	0 %

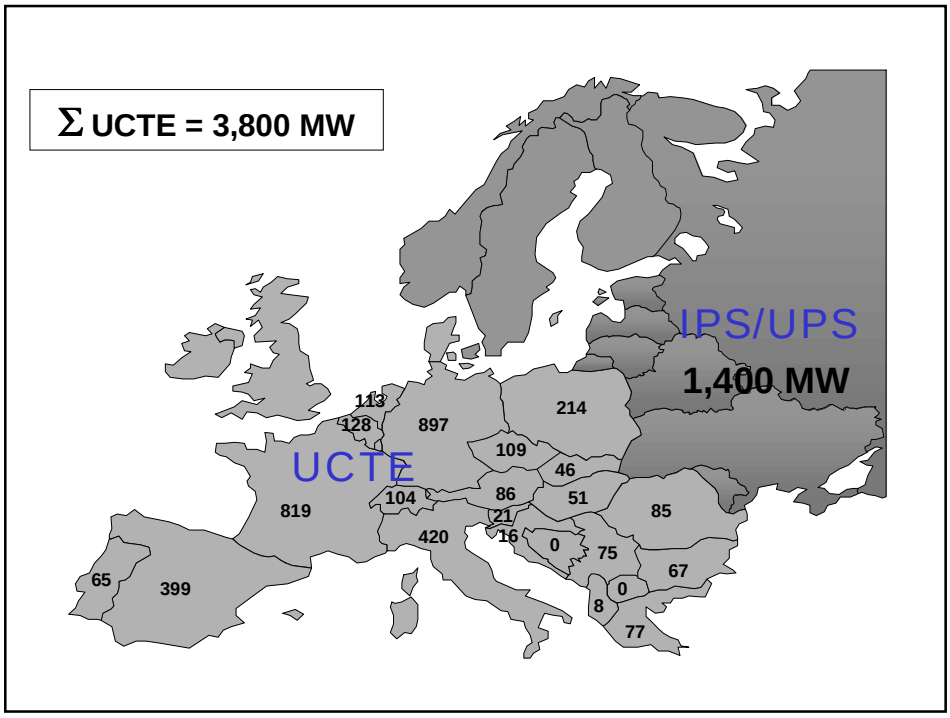
Case 2: Reducing of the generation in all UCTE countries - input from IPS/UPS
Case 3: Reducing of the generation only in the UCTE import countries - input from IPS/UPS
Case 4: Reducing of the generation only in the UCTE export countries - input from IPS/UPS
Case 5: Increasing of generation in all UCTE countries - consumption in IPS/UPS
Case 6: Increasing of generation only in the UCTE export countries - consumption in IPS/UPS

Case 7: Reducing of the generation in KOZLODUJ - input from IPS/UPS
Case 8: Reducing of the generation in all UCTE PART 2 countries - input from IPS/UPS

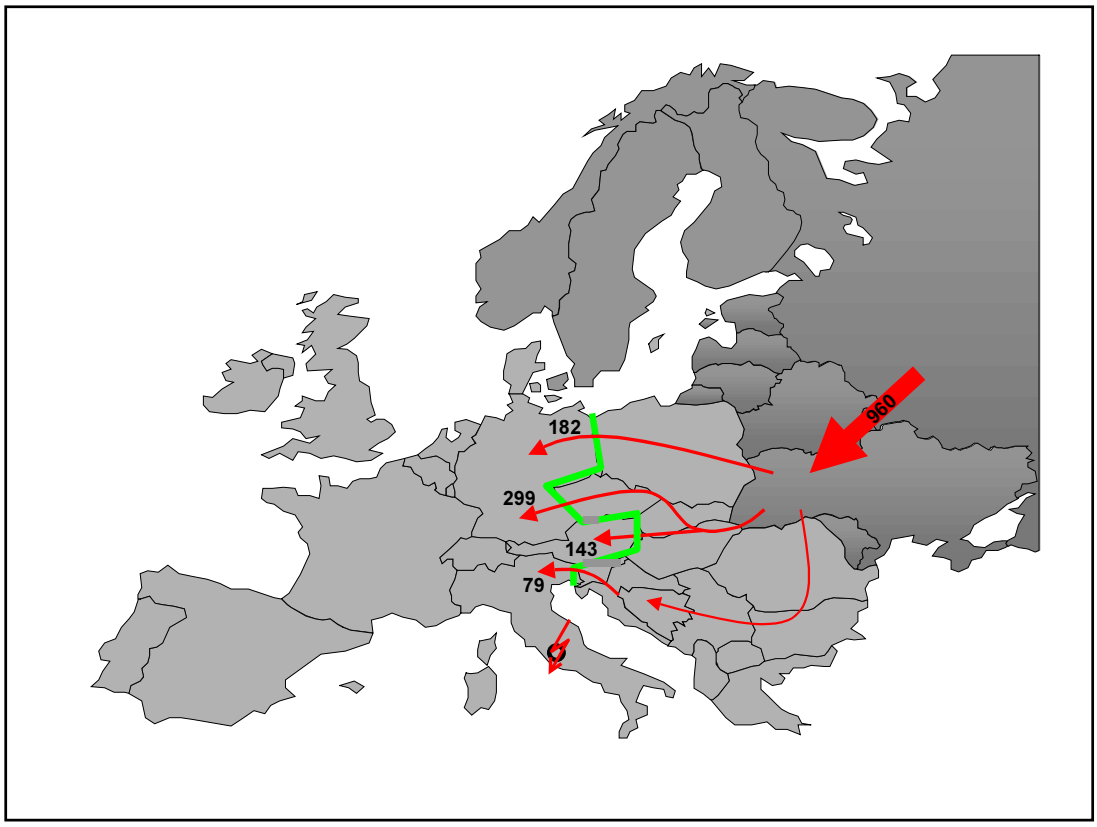
Primary control contribution - Annex 4

Area	Contribution for Primary Control [1]	Power Frequency Characteristic [MW/Hz]	Maximum Control Power [MW]
Albania	0.00	40	8
Austria	0.02	431	86
Belgium	0.03	639	128
Bosnia-Herzigovina	0.00	0	0
Bulgaria	0.02	335	67
Croatia	0.00	80	16
Czechia	0.03	543	109
France	0.22	4,097	819
Germany	0.24	4,480	896
Greece	0.02	383	77
Hungary	0.01	256	51
Italy	0.11	2,100	420
Macedonia	0.00	0	0
Netherland	0.03	567	113
Poland	0.06	1,070	214
Portugal	0.02	327	65
Romania	0.02	423	85
Slovakia	0.01	232	46
Slovenia	0.01	104	21
Spain	0.11	1,997	399
Switzerland	0.03	519	104
Yugoslavia	0.02	375	74
Σ UCTE	**1.00**	**19,000**	**3,800**
IPS/UPS (transient)	0.37 (0.79)	7,000 (15,000)	1,400 (3,000)

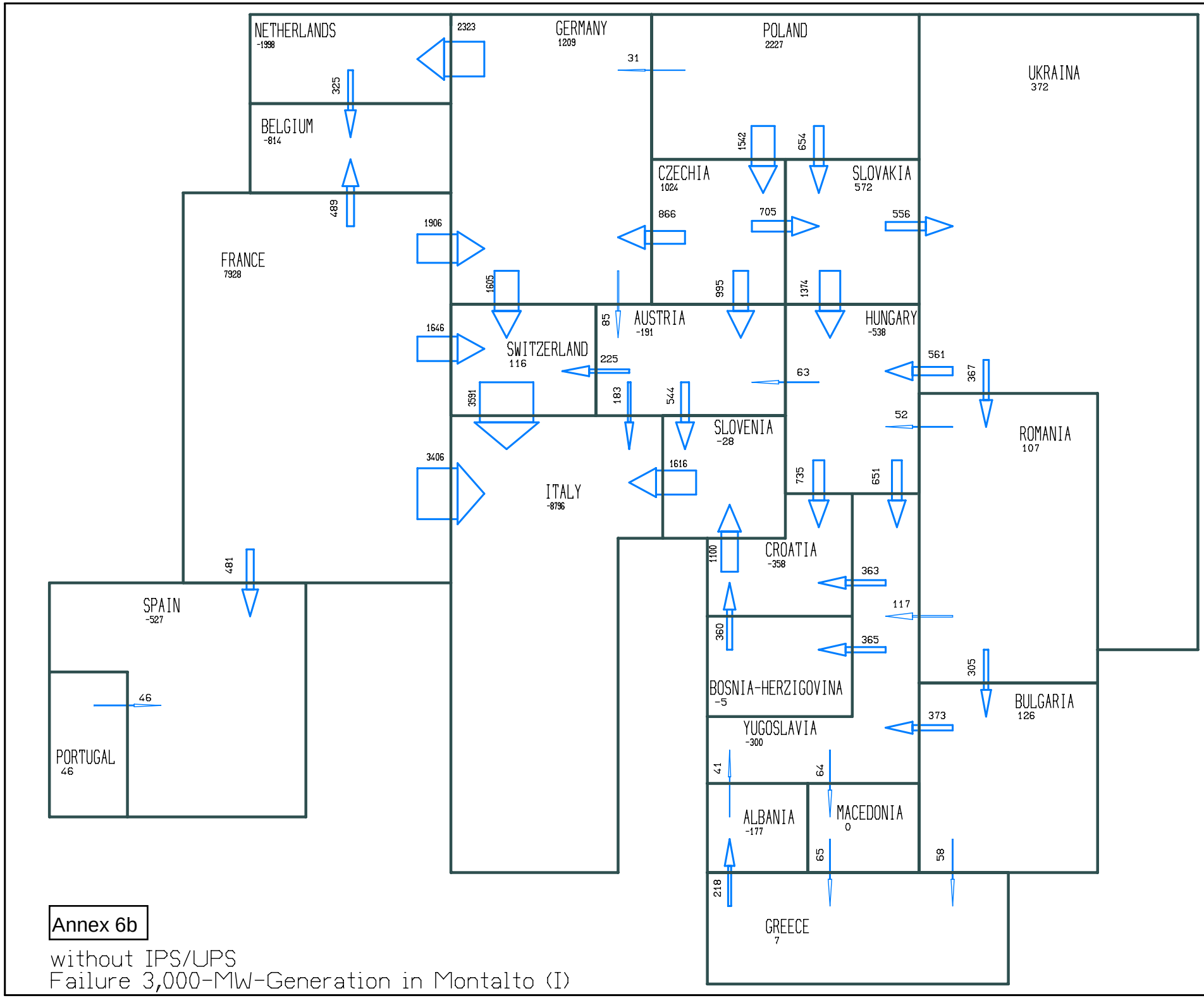
Distribution of primary control power - A. 5



Annex 6a



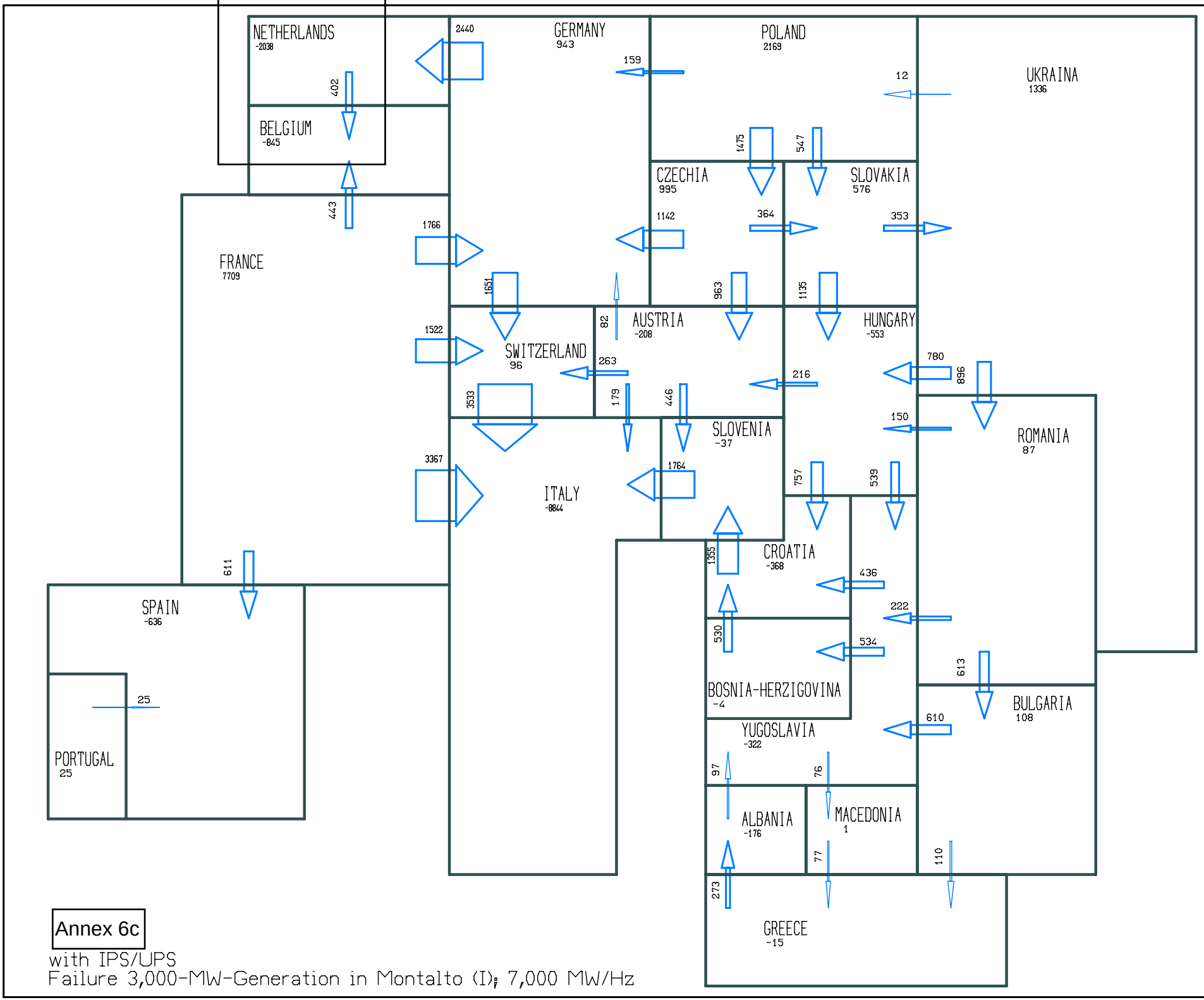
Primary control flow from IPS/UPS after outage of generation in Tabardierie (F) – difference load-flow



Annex 6b

without IPS/UPS

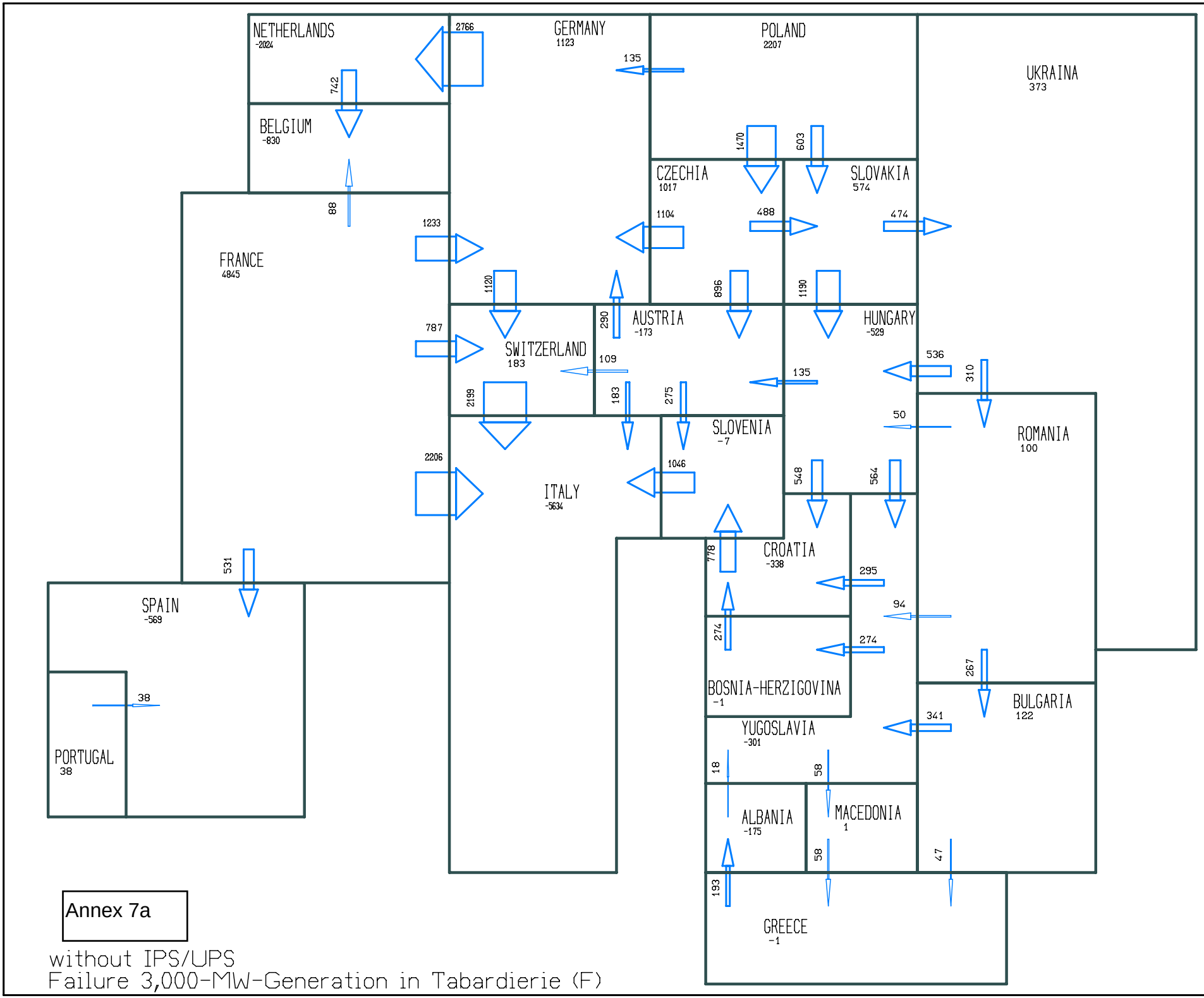
Failure 3,000-MW-Generation in Montalto (I)



Annex 6c

with IPS/UPS

Failure 3,000-MW-Generation in Montalto (I); 7,000 MW/Hz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GERMANY
1123
POLAND
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UKRAINA
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BELGIUM
-830
CZECHIA
1017
SLOVAKIA
574
FRANCE
4845
AUSTRIA
-173
HUNGARY
-529
SWITZERLAND
183
SLOVENIA
-7
ROMANIA
100
ITALY
-5634
CROATIA
-338
SPAIN
-569
BOSNIA-HERZIGOVINA
-1
BULGARIA
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YUGOSLAVIA
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PORTUGAL
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ALBANIA
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MACEDONIA
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GREECE
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58
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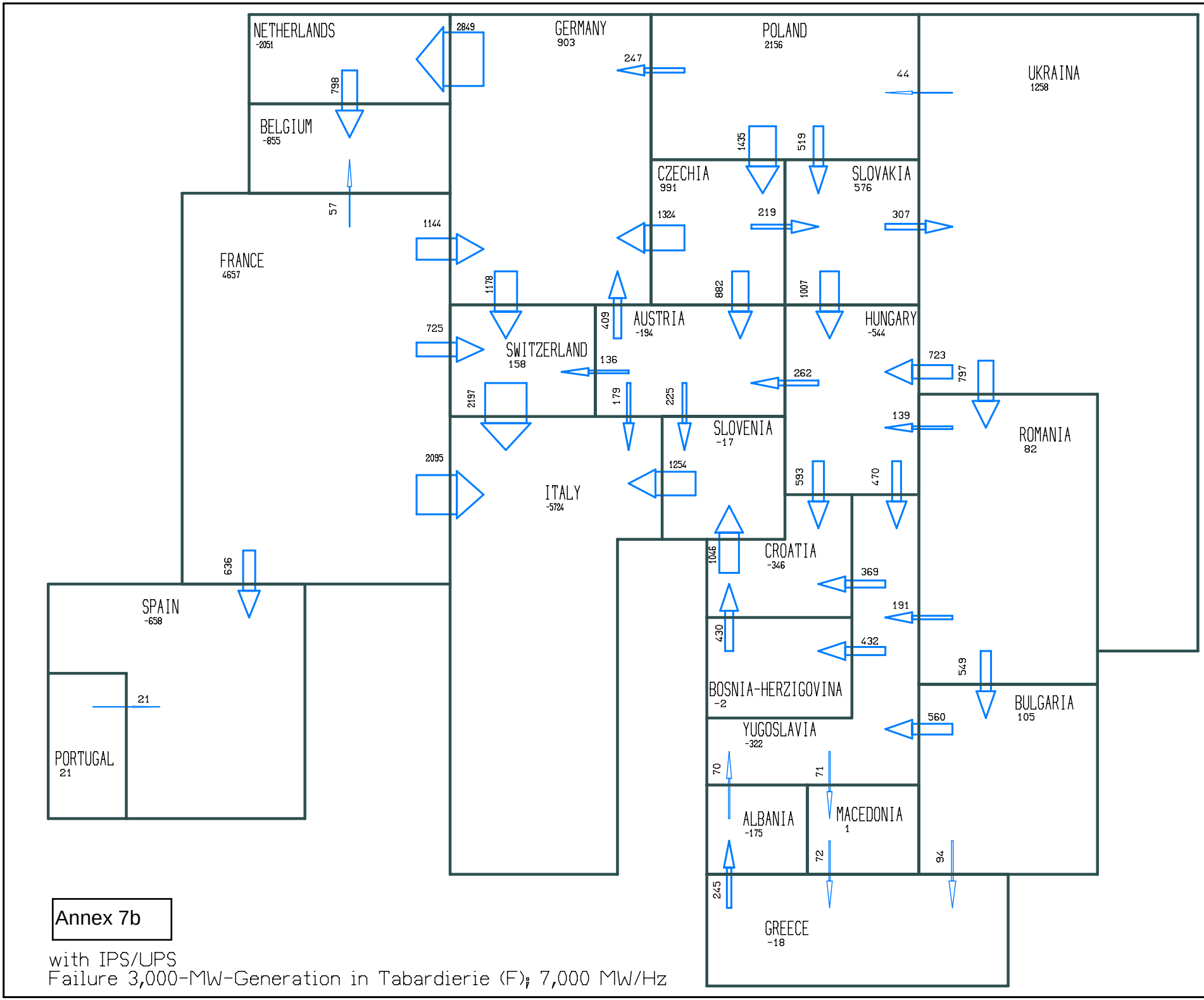
193
Annex 7a
without IPS/UPS
Failure 3,000-MW-Generation in Tabardierie (F)



Annex 7b

with IPS/UPS
Failure 3,000-MW-Generation in Tabardierie (F); 7,000 MW/Hz