CORESO Engineers ***North :*** BROUTA Karl ***South :*** KESRAOUI Mickael	**Day Ahead report for** **05 January 2018**

Security Levels:

CWE: No critical constraint detected.

CEE: No constraint detected.

CSE: Critical constraint detected on Pradella - La Punt that is manageable with topological measure at Sils, however the availability of this measure must be confirmed in real time.

Key overall conditions

Load & Generation margin forecast			Main generating units connected to the grid in DACF				
ELIA			Elia	Doel	Pmax (MW)	1000	**1**	1900
						450	2	
Peak load [MW]	10 400	18:00		Tihange		1000	2	2900
						450	2	
Generation Margin	Sufficient			Coo		230	3	1170
						160	3	
			50HzT	Rostock	Pmax (MW)	530	1	530
				Janschwalde		500	6	3000
				Boxberg		500	2	1900
						900	**1**	
				Schw. Pumpe		800	2	1600
				Lippendorf		920	2	1840
RTE			RTE	Gravelines	Pmax (MW)	900	6	5400
Peak load [MW]	70 300	19:00		Chooz		1500	2	3000
Generation Margin	Sufficient			Cattenom		1300	4	5200
				Fessenheim		900	**1**	900
NATIONAL GRID (UK time)				Penly		1300	2	2600
Peak load [MW]	46 300	17:00		Paluel		1300	**3**	3900
Generation Margin	Sufficient			Nogent s/ Seine		1300	2	2600
				Bugey		900	4	3600
TERNA				St Alban		1300	2	2600
Peak load [MW]	41300	18:30		Cruas		900	**3**	2700
Generation Margin	Sufficient			Tricastin		900	4	3600

Generation margin legend:

Green: Sufficient margin available. No risk for need of inter-TSO solicitation due to margin issues.

Orange: Tight margin available. Low risk for need of inter-TSO solicitation due to margin issues.

Red: Insufficient margin available. High risk for need of inter-TSO solicitation due to margin issues.

Comments:

CWE / CEE

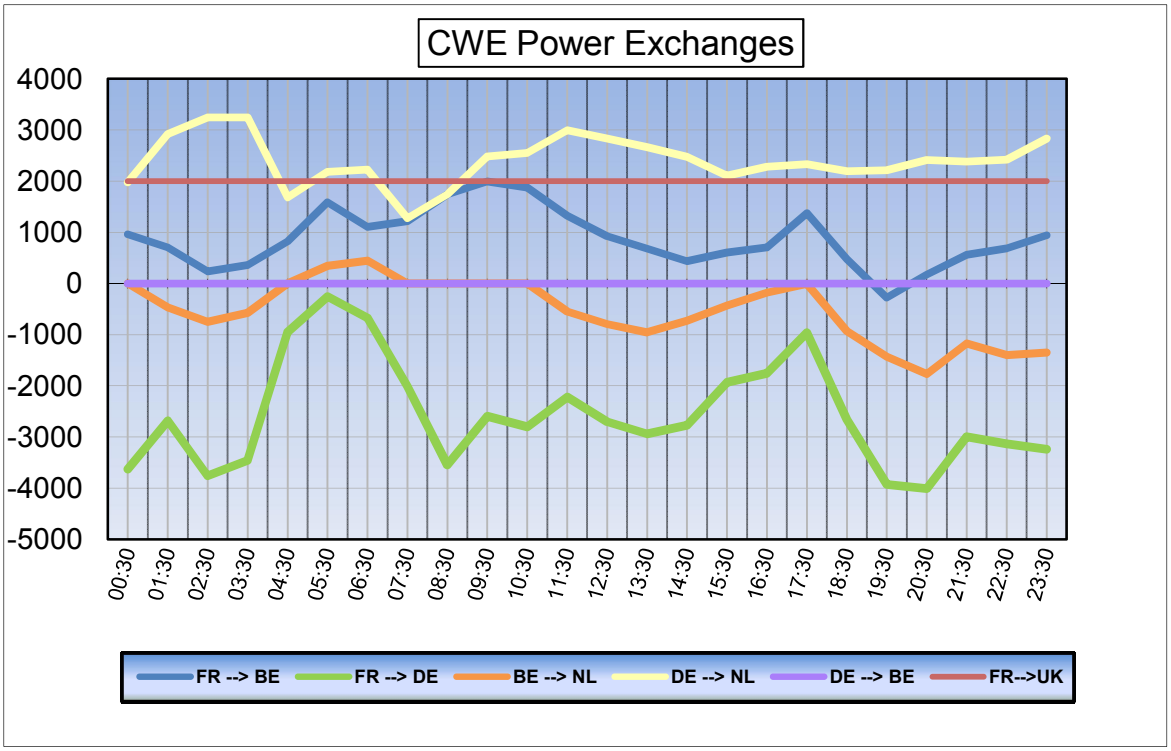
CSE

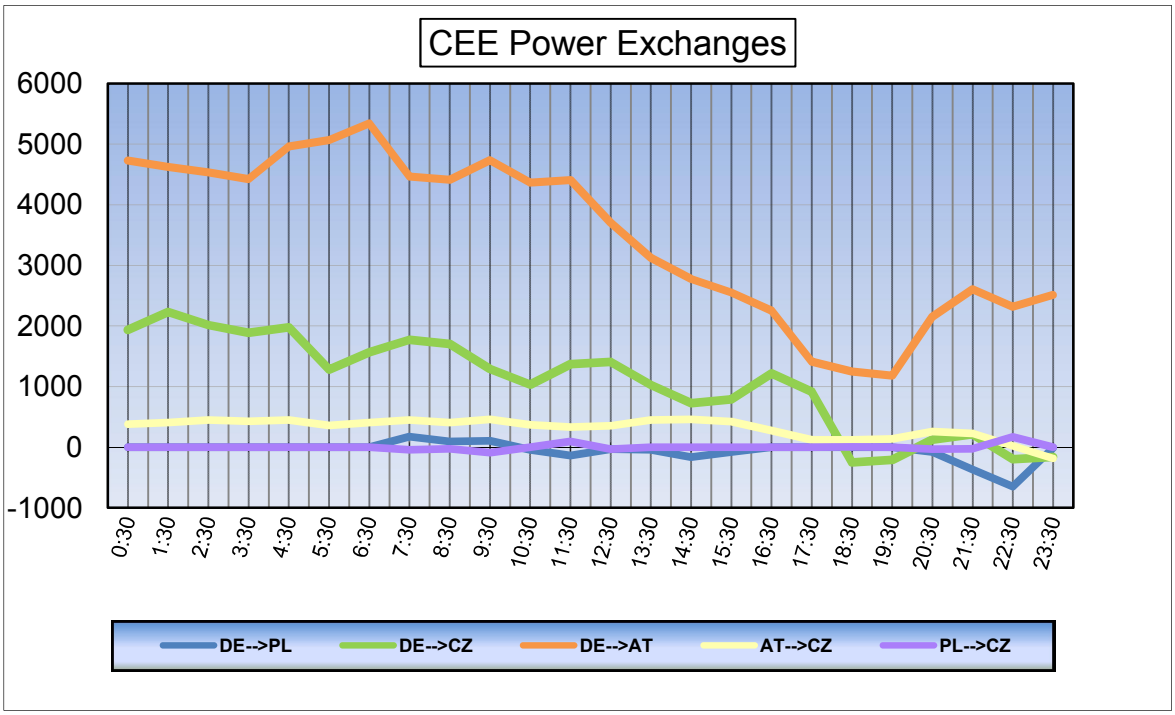
RTE: return of Tricastin 1

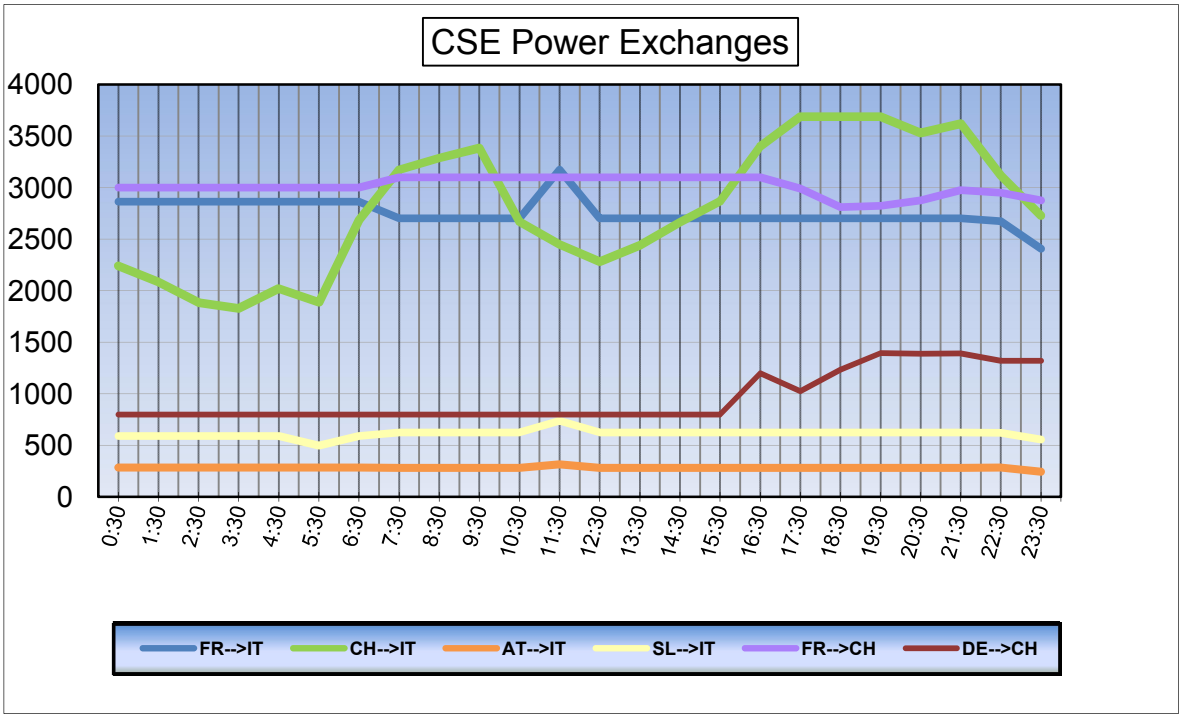
Outages table

OUTAGES					
Owner	Type of element	Line name	start	end	Comments
50HzT	Hydro.Gen	MARKERSBACH _ Unit D 400 kV	28/09/2017	27/04/2018	160 MW
50HzT	Line	EULA _ Wolkramhausen 357 220 kV	06/10/2017	16/03/2018	
50HzT	Line	GUSTROW _ WESSIN 424 400 kV	04/01/2018	05/01/2018	
50HzT	Line	LUBMIN _ WIKINGER 281 220 kV	26/09/2017	31/01/2018	
50HzT	Line	RAGOW _ Förderstedt 531 400 kV	02/01/2018	14/01/2018	
50HzT	Line	RAGOW _ FORDERSTEDT 532 380 kV	02/01/2018	14/01/2018	
50HzT	Line	WOLMIRSTEDT _ WUSTERMARK 494 400 kV	15/08/2017	31/12/2018	Long term outage
50HzT / PSE	Line	KRAJNIK _ VIERRADEN 507 225 kV	22/06/2016	31/05/2018	Long term outage
50HzT / PSE	Line	KRAJNIK _ VIERRADEN 508 225 kV	22/06/2017	31/05/2018	Long term outage
APG	Line	TAUERN _ PST 220 kV	14/12/2017	15/01/2018	
CEPS	Generation	MELNIK _ UNIT 400 kV	04/11/2017	31/01/2018	
ELES	Generation	SOSTANJ _ UNIT 6 (550MW) 400 kV	19/12/2017	08/01/2018	
ELES	Line	MARIBOR _ PODLOG 400 kV	04/01/2018	05/01/2018	
ELIA	Line	GEZELLE _ STEVIN 111 400 kV	19/09/2017	02/03/2018	
ELIA	Line	GEZELLE _ STEVIN 112 400 kV	19/09/2017	02/03/2018	
ELIA	Nuc.Gen	DOEL _ Unit 3 (1000MW) 400 kV	23/09/2017	16/04/2018	Forced outage
PSE	Fossil.Gen	TUROW _ Unit 2 225 kV	01/03/2017	12/01/2018	
PSE	Line	POLANIEC _ TARNOW 400 kV	03/01/2018	05/01/2018	
PSE	Line	TUCZNAWA _ RZESZOW 400 kV	03/01/2018	05/01/2018	
RTE	Line	BARNABOS _ TERRIER 1 400 kV	18/12/2017	05/01/2018	
RTE	Nuc.Gen	CRUAS _ Unit 2 (900MW) 400 kV	02/12/2017	30/03/2018	
RTE	Nuc.Gen	FESSENHEIM _ Unit 2 (900MW) 400 kV	01/01/2017	15/03/2018	
RTE	Nuc.Gen	PALUEL _ Unit 2 (1300MW) 400 kV	01/08/2015	15/04/2018	
RTE	Nuc.Gen	TRICASTIN _ Unit 1 (900MW) 400 kV	29/09/2017	07/01/2018	
S.GRID	Line	LIMMERN _ TIERFEHD 1 400 kV	28/01/2017	31/07/2018	
S.GRID	Nuc.Gen	BEZNAU _ BEZNAU G11 220 kV	13/03/2015	28/02/2018	182 MW
S.GRID	Nuc.Gen	BEZNAU _ BEZNAU G12 220 kV	13/03/2015	28/02/2018	182 MW
TENNET DE	Line	TWISTETAL _ BORKEN 3 400 kV	16/05/2017	11/10/2018	
TransnetBW	Line	GOLDSHOFE _ KUPFERZELL GN 400 kV	03/01/2018	10/01/2018	

Exchange program forecasts






CSE Power Exchanges
4000
3500
3000
2500
2000
1500
1000
500
0
0:30
1:30
2:30
3:30
4:30
5:30
6:30
7:30
8:30
9:30
10:30
11:30
12:30
13:30
14:30
15:30
16:30
17:30
18:30
19:30
20:30
21:30
22:30
23:30
FR-->IT
CH-->IT
AT-->IT
SL-->IT
FR-->CH
DE-->CH

ELIA expected flows & PSTs tap position

		Node 1	Node 2	Order	02:30	03:30	05:30	07:30	09:30	10:30	12:30	17:30	18:30	19:30	22:30	23:30
BE	FR	ACHENE	LONNY	380.19	89	54	-322	-20	-82	-37	59	-62	285	463	137	95
BE	FR	AUBANGE	MONT ST MARTIN	220.51	-39	-65	-189	-48	-92	-106	-43	-21	25	77	-14	-26
BE	FR	AUBANGE	MOULAINE	220.51	-34	-63	-177	-42	-91	-104	-49	-29	15	58	-21	-29
BE	FR	AVELGEM	AVELIN	380.80	66	22	-505	-139	-134	-66	7	-617	103	420	-123	-217
BE	FR	AVELGEM	MASTAING	380.79	-77	-104	-340	-275	-310	-267	-208	-499	-208	-55	-268	-305
BE	FR	MONCEAU	CHOOZ	220.48	-82	-89	-147	-128	-168	-160	-142	-203	-130	-87	-177	-185
BE	NL	VAN EYCK 1	MAASBRACHT	380.27	-345	-316	-138	-285	-388	-392	-403	-173	-437	-501	-528	-546
BE	NL	VAN EYCK 2	MAASBRACHT	380.28	-114	-57	276	202	82	72	28	568	146	-27	-133	-148
BE	NL	ZANDVLIET	BORSSELE	380.29	-271	-225	-18	-448	-678	-672	-689	-602	-850	-947	-401	-375
BE	NL	ZANDVLIET	GEERTRUIDENBERG	380.30	-142	-96	179	-18	-67	-80	-120	240	-218	-368	-438	-401
BE	LU	BELVAL	SCHIFFLANGE	220.511	-40	2	137	-22	-67	-59	-152	11	-136	-195	-118	-152

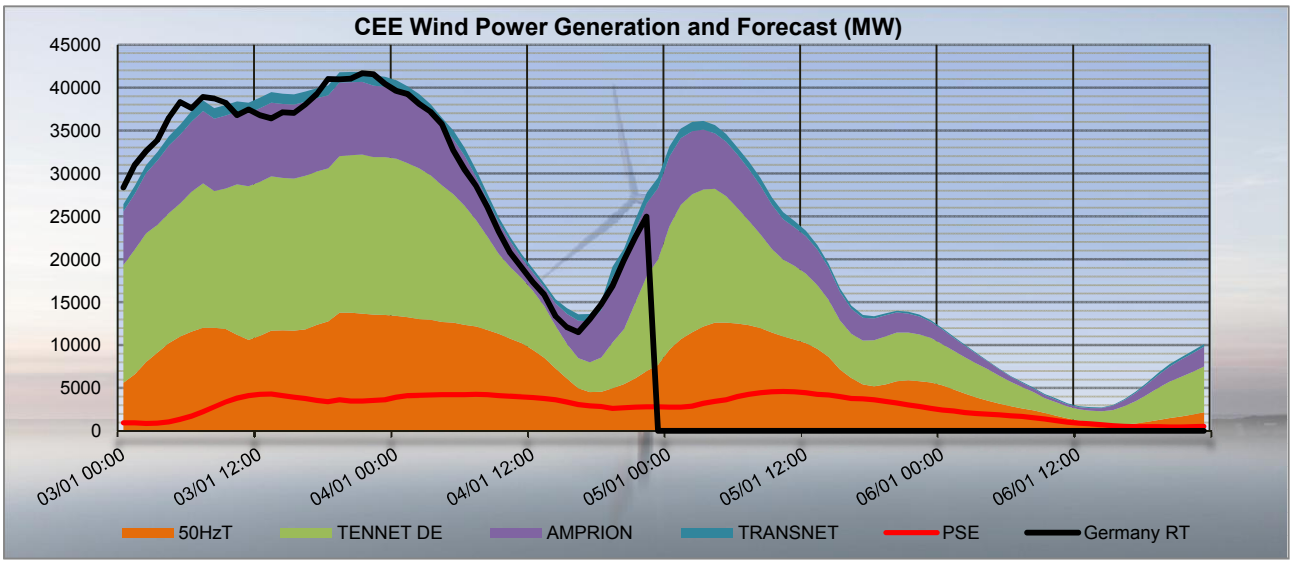
BE	FR	TOTAL		-77	-245	-1680	-652	-877	-740	-376	-1431	90	876	-466	-667
BE	NL	TOTAL		-872	-694	299	-549	-1051	-1072	-1184	33	-1359	-1843	-1500	-1470
BE	LU	TOTAL		-40	2	137	-22	-67	-59	-152	11	-136	-195	-118	-152
TOTAL BELGIAN IMPORT/EXPORT				-989	-937	-1244	-1223	-1995	-1871	-1712	-1387	-1405	-1162	-2084	-2289

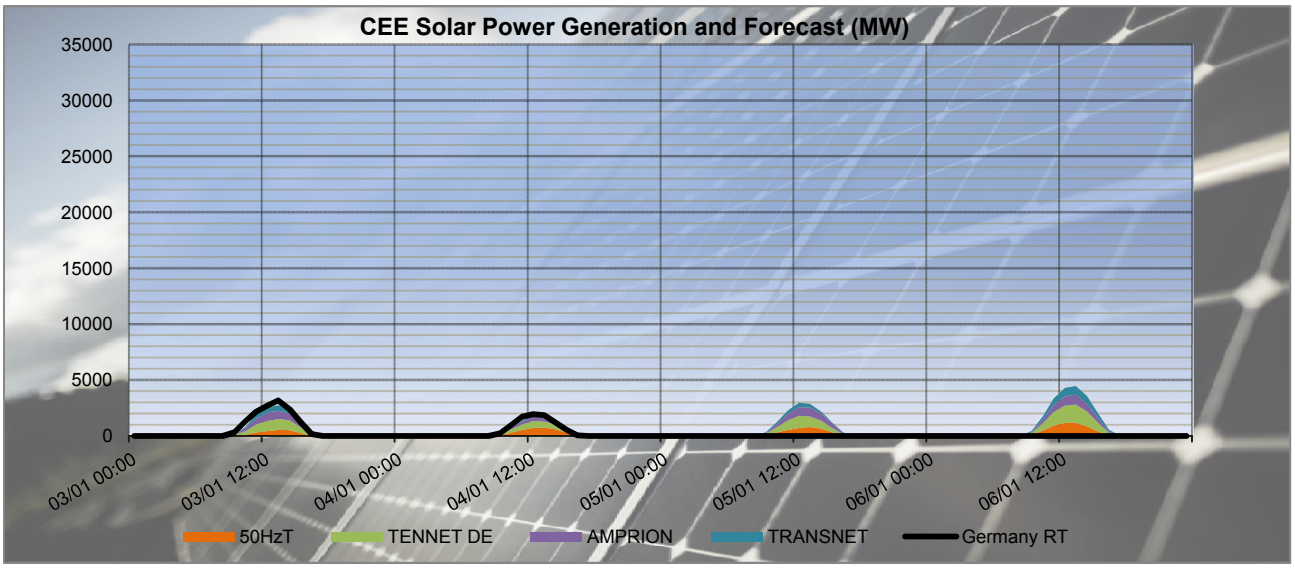
PST taps in DACF	**Zandvliet 1**	12	12	12	12	12	12	12	12	12	12	12	12	12
	Zandvliet 2	12	12	12	12	12	12	12	12	12	12	12	12	12
	Van Eyck 1	12	12	12	12	12	12	12	12	12	12	12	12	12
	Van Eyck 2	12	12	12	12	12	12	12	12	12	12	12	12	12
	Average	12	12	12	12	12	12	12	12	12	12	12	12	12

CREOS PST in DACF	**Schifflange**	17	17	17	17	17	17	17	17	17	17	17	17	17

Proposal for real time after D-1 studies																								
Timestamps		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
PSTs																								
Zandvliet PST 1	**[1;35]**	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Zandvliet PST 2	**[1;35]**	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Van Eyck PST 1	**[1;35]**	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Van Eyck PST 2	**[1;35]**	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Schifflange PST 1	**[1;35]**	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

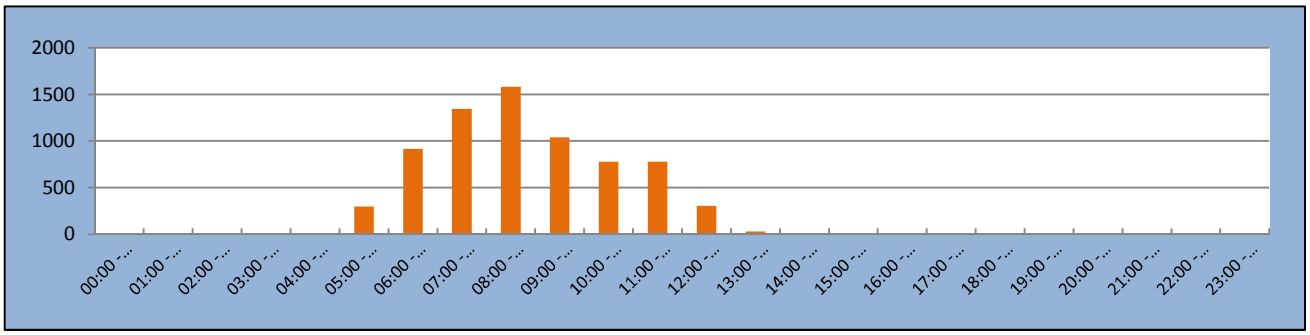
CEE Renewable Power Generation & Forecast



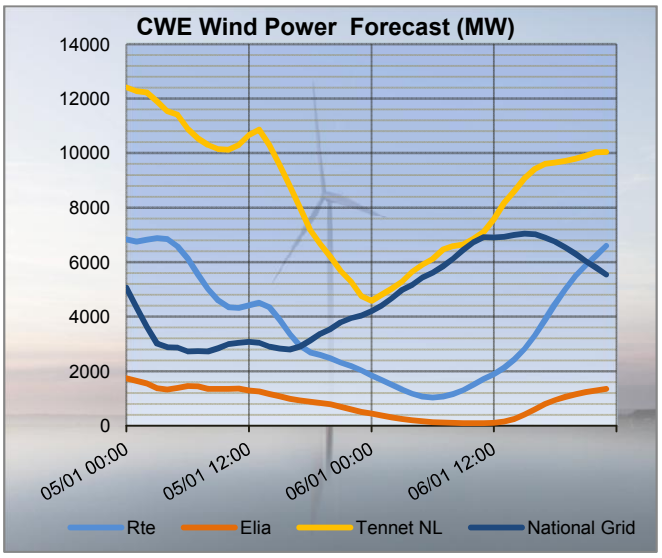


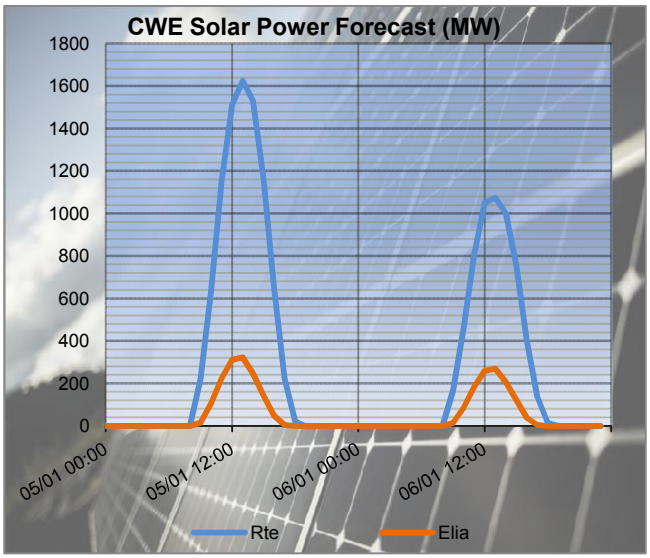
The charts above show the wind and solar generation forecasts for the TSOs in CEE (most significant) from D+1 until D-2 and the realised generation in Germany in real time. Source: Meteologica and 50HzT (RT)

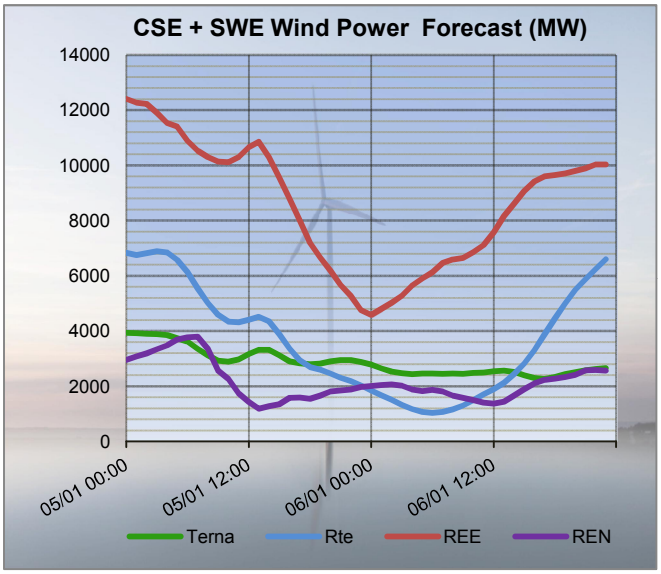
50HzT Preventive Redispatch

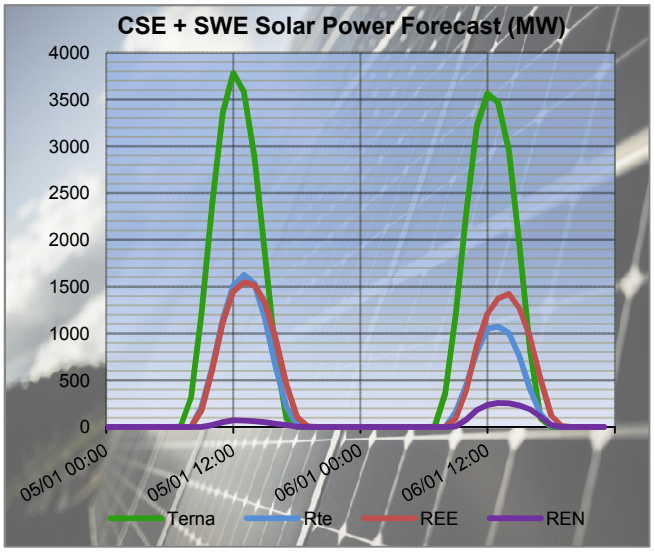


CWE, CSE & SWE Renewable Power Forecast (D-1 and D-2)









The charts above show the latest wind and solar generation forecasts for D-1 and D-2 for all the European TSOs in CWE, CSE and SWE with a significant installed capacity. Source: Meteologica

RTE flows on cross-border lines

With last provided tap position on Belgian PSTs:

				03:30			07:30			10:30			12:30		
		Node 1	Node 2	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta
FR	BE	LONNY	ACHENE	197	-54	**-251**	145	20	-125	143	37	-106	18	-59	-77
FR	BE	MONT ST MARTIN	AUBANGE	94	65	-29	41	48	7	92	106	14	37	43	6
FR	BE	MOULAINE	AUBANGE	91	63	-28	35	42	7	91	104	13	43	49	6
FR	BE	AVELIN	AVELGEM	151	-22	-173	334	139	-195	398	66	**-332**	292	-7	**-299**
FR	BE	MASTAING	AVELGEM	222	104	-118	377	275	-102	481	267	-214	407	208	-199
FR	BE	CHOOZ	MONCEAU	171	89	-82	184	128	-56	216	160	-56	213	142	-71
FR	DE	MUHLBACH	EICHSTETTEN	-95	61	156	228	371	143	147	283	136	118	264	146
FR	DE	VOGELGRUN	EICHSTETTEN	-51	21	72	25	63	38	9	67	58	-17	40	57
FR	DE	ST AVOLD	ENSDORF	0	0	0	0	0	0	0	0	0	0	0	0
FR	DE	VIGY	ENSDORF 1	-395	-72	**323**	222	258	36	-8	215	223	-69	107	176
FR	DE	VIGY	ENSDORF 2	-393	-48	**345**	9	74	65	7	277	**270**	-22	193	215

				17:30			19:30			23:30		
		Node 1	Node 2	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta
FR	BE	LONNY	ACHENE	142	62	-80	-280	-463	-183	190	-95	**-285**
FR	BE	MONT ST MARTIN	AUBANGE	-6	21	27	26	-77	-103	66	26	-40
FR	BE	MOULAINE	AUBANGE	3	29	26	40	-58	-98	67	29	-38
FR	BE	AVELIN	AVELGEM	622	617	-5	-346	-420	-74	342	217	-125
FR	BE	MASTAING	AVELGEM	523	499	-24	103	55	-48	394	305	-89
FR	BE	CHOOZ	MONCEAU	283	203	-80	192	87	-105	286	185	-101
FR	DE	MUHLBACH	EICHSTETTEN	339	386	47	-173	1	174	-217	20	237
FR	DE	VOGELGRUN	EICHSTETTEN	14	42	28	-76	-10	66	-44	29	73
FR	DE	ST AVOLD	ENSDORF	0	0	0	0	0	0	0	0	0
FR	DE	VIGY	ENSDORF 1	200	328	128	-395	-170	225	-391	-132	**259**
FR	DE	VIGY	ENSDORF 2	278	429	151	-431	-173	**258**	-380	-108	**272**

				03:30			07:30			10:30			12:30		
		Node 1	Node 2	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta
FR	CH	SIERENTZ	ASPHARD	243	231	-12	222	367	145	208	306	98	210	326	116
FR	CH	MAMBELIN	BASSECOURT	-183	-142	41	-207	-119	88	-234	-142	92	-255	-165	90
FR	CH	SIERENTZ	BASSECOURT	462	410	-52	389	416	27	418	430	12	445	455	10
FR	CH	BOIS TOLLOT	ROMANEL	115	21	-94	123	59	-64	118	78	-40	93	50	-43
FR	CH	SIERENTZ	LAUFENBURG	265	336	71	158	230	72	117	169	52	131	175	44
FR	CH	CORNIER	RIDDES	-42	-8	34	-14	34	48	-17	34	51	-30	17	47
FR	CH	CORNIER	ST TRIPHON	-62	-31	31	-44	8	52	-53	-3	50	-68	-24	44
FR	CH	PRESSY	VALLORCINES	-104	-81	23	-91	-39	52	-105	-53	52	-124	-72	52
FR	CH	BOIS TOLLOT	VERBOIS	80	135	55	104	174	70	142	187	45	152	194	42
FR	CH	GENISSIAT	VERBOIS	162	171	9	158	182	24	170	184	14	164	176	12
FR	CH	GENISSIAT	VERBOIS	162	171	9	158	182	24	170	184	14	164	176	12
FR	IT	ALBERTVILLE	RONDISSONE	743	649	-94	938	817	-121	891	774	-117	830	702	-128
FR	IT	ALBERTVILLE	RONDISSONE	743	618	-125	938	788	-150	891	744	-147	830	671	-159
FR	IT	MENTON	CAMPOROSSO	249	198	-51	143	203	60	156	200	44	161	207	46
FR	IT	VILLARODIN	VENAUS	-157	-109	48	266	300	34	194	209	15	118	162	44

				17:30			19:30			23:30		
		Node 1	Node 2	DACF	Merge	Delta	DACF	Merge	Delta	DACF	Merge	Delta
FR	CH	SIERENTZ	ASPHARD	259	346	87	94	185	91	100	149	49
FR	CH	MAMBELIN	BASSECOURT	-221	-151	70	-374	-302	72	-303	-235	68
FR	CH	SIERENTZ	BASSECOURT	417	441	24	440	451	11	416	404	-12
FR	CH	BOIS TOLLOT	ROMANEL	139	59	-80	42	-12	-54	94	31	-63
FR	CH	SIERENTZ	LAUFENBURG	194	174	-20	44	47	3	115	152	37
FR	CH	CORNIER	RIDDES	-19	12	31	-53	-8	45	-50	-6	44
FR	CH	CORNIER	ST TRIPHON	-83	-16	67	-118	-43	75	-64	-18	46
FR	CH	PRESSY	VALLORCINES	-133	-76	57	-168	-96	72	-152	-95	57
FR	CH	BOIS TOLLOT	VERBOIS	115	202	87	97	184	87	111	178	67
FR	CH	GENISSIAT	VERBOIS	152	183	31	123	157	34	154	173	19
FR	CH	GENISSIAT	VERBOIS	153	183	30	123	157	34	154	173	19
FR	IT	ALBERTVILLE	RONDISSONE	973	795	-178	892	724	-168	811	668	-143
FR	IT	ALBERTVILLE	RONDISSONE	974	750	-224	893	663	-230	811	638	-173
FR	IT	MENTON	CAMPOROSSO	144	207	63	143	203	60	155	203	48
FR	IT	VILLARODIN	VENAUS	436	391	-45	275	254	-21	90	100	10

N state flows at 10:30 and 19:30

The Imax and load values in the table below are extracted from the merged TSOs' DACF.

TSO	Line (380 kV)	10:30		19:30	
		Imax (A)	% of Imax	Imax (A)	% of Imax
ELIA	Champion - Gramme (32)	2448	43	2448	44
	Doel - Mercator (51)	2239	33	2239	41
	Doel - Mercator (52)	2239	33	2239	41
	Doel - Mercator (54)	2448	33	2448	41
	Doel - Zandvliet (25)	2349	12	2349	26
	Mercator - Horta (73)	2569	22	2569	44
	Courcelles - Gramme (31)	2298	51	2349	50
	Mercator - Rodenhuize/Horta (74)	2305	25	2349	49
RTE	Attaques - Warande 2	3780	52	3780	57
	Avelin - Gavrelle	2622	25	2622	52
	Avelin - Warande	3458	14	3458	6
	Lonny - Seuil	4149	20	4149	27
	Mandarins - Warande 1	3780	49	3780	54
	Muhlbach - Scheer	2598	25	2598	22
	Revigny - Vigy	2596	33	2596	46
	Warande - Weppes	3458	20	3458	12

X < 50 % of Imax 50 ≤ X < 75 % of Imax X ≥ 75 % of Imax

TSO	Voltage	Line (380 kV)	10:30		19:30	
			Imax (A)	% of Imax	Imax (A)	% of Imax
50 HzT	380 kV	Eisenach - Mecklar (450-2)	2520	40	2520	34
		Hagenwerder - Mikulowa (567)	2520	25	2520	14
		Hagenwerder - Mikulowa (568)	2520	25	2520	14
		Remptendorf - Redwitz (413)	3417	56	3417	49
		Remptendorf - Redwitz (414)	3417	56	3417	49
		Röhrsdorf - Hradec (445)	2520	50	2520	27
		Röhrsdorf - Hradec (446)	2520	50	2520	27
		Vieselbach - Mecklar (449-1)	2520	40	2520	35
		Wolmirstedt - Helmstedt (491-1)	2400	34	2400	19
		Wolmirstedt - Helmstedt (492-2)	2400	34	2400	19
	220 kV	Vierraden - Krajnik (507)	1325	0	1334	0
		Vierraden - Krajnik (508)	1325	0	1334	0

X < 50 % of Imax 50 ≤ X < 75 % of Imax X ≥ 75 % of Imax

Special topologies at 10:30 and 19:30

Nodes in North area				
			10:30	19:30
380 kV	Elia	Doel	1	1
		Avelgem	1	1
	Rte	Warande	1	1
		Cergy	2	2
		Terrier	1	1
		Plessis Gassot	1	1
		Mery/Seine	2	2
		Muhlbach	1	1
		Vigy	2	2
	Transnet bw	Eichstetten	1	1
	Amprion	Uchtelfangen	1	1
	Tennet DE	Redwitz	1	1
	50 HzT	Remptendorf	1	1
		Wolmirstedt	1	1
	CEPS	Hradec Vychod	1	1
220 kV	50 HzT	Pasewalk	1	1

North analyses results

Security analyses have been performed for 24 timestamps.
All remedial actions have been agreed with concerned TSO during the day ahead process.

Constraints on Elia, RTE (North) and 50HzT 400kV grids and tie-lines

TSO	Validity	Contingency				Constraint					Timestamps of max
		U (kV)	Substation 1	Substation 2	Code	Overload	U (kV)	Substation 1	Substation 2	Code	
		No constraint detected in Rte, Elia and 50Hertz									

Constraints greater than 100% on NL + Amprion 400kV grids and greater than 120% on DE, CZ, PL and SK 400kV grids

TSO	Validity	Contingency				Constraint					Timestamps of max
		U (kV)	Substation 1	Substation 2	Code	Overload	U (kV)	Substation 1	Substation 2	Code	
Tennet NL/ Tennet DE	00:00 - 05:00	400	Diele	Meeden	axis	150%	400	Diele	Meeden	remaining	03:30
		Preventive action : -4 taps on Meeden PSTs and -10 taps on Diele PSTs ==> 89 % remaining No more constraints detected after the preventive actions implemented.									

Constraints on ELIA 220/150kV grid at 10:30

Contingency				Constraint					Comments
U (kV)	Substation 1	Substation 2	Code	Overload	U (kV)	Substation 1	Substation 2	Code	
No constraints detected.									

50HzT DC loopflows sensitivity

Vierraden-Krajnik 220kV axis in long term outage till 2018.

South analyses results

Security analyses have been performed for these 2 timestamps:

- Off-peak period (23:00 – 07:00): **02:30**
- Peak period (07:00 – 23:00): **19:30**

Adaptations made on merged DACFs:

Off-peak:

- SI ➔ IT physical flow adapted to **800 MW**
- Mendrisio-Cagno flow adapted to this schedule: **121 MW**
- PST of Lienz adapted to **120 MW**
- PST of Camporosso adapted to **200 MW**

Peak:

- SI ➔ IT physical flow adapted to **800 MW**
- Mendrisio-Cagno flow adapted to this schedule : **200 MW**
- PST of Lienz adapted to: **120 MW**
- PST of Camporosso adapted to **200 MW**

Special topologies

Nodes in South area				
			Off Peak	Peak
380 kV	Swissgrid	Sils	1	1
		Robbia	2	2
	Rte	Génissiat	1	1
		Albertville	1	1
		Grande Ile	2	2
	Terna	Turbigo	1	1
		Baggio	1	1
		Bovisio	**1**	**2**
		Ostiglia	1	1

N state flows Off-Peak & Peak

The Imax and load values in the table below are extracted from the **adapted** merged TSOs' DACF.

TSO	Voltage	Line (380 kV)	Off Peak		Peak	
			Imax (A)	% of Imax	Imax (A)	% of Imax
Terna	380 kV	Albertville - Rondissone 1	2370	40	2370	45
		Albertville - Rondissone 2	2370	38	2370	41
		Bulciago - Soazza	2300	35	2300	50
		Cagno - Mendrisio	855	20	855	39
		Musignano - Lavorgo	2270	54	2270	62
		Redipuglia - Divaca	2700	33	2700	35
		Robbia - San Fiorano	2530	40	2530	52
		Robbia - Gorlago	2530	46	2530	66
		Venaus - Villarodin	2715	5	2715	14
	220 kV	Airolo - Ponte	900	12	900	16
		Lienz - Soverzene	750	38	750	37
		Menton - Campo Rosso	1165	41	1165	44
		Padriciano - Divaca	960	44	960	37
		Riddes - Avise	1010	18	1010	25
		Riddes - Valpelline	1010	20	1010	26
		Serra - Pallanzeno	900	23	900	33

For Terna:

X < 50 % of Imax | 50 ≤ X < 75 % of Imax | X ≥ 75% of Imax

Sensitivity coefficients for the Pentalateral instruction

The amount of the control program curtailment on peak and off-peak can be calculated thanks to the sensitivities in the table below:

		FR → IT	CH → IT	AT → IT	SI → IT
Off Peak	Initial physical flows on adapted base case	1384	3318	114	798
	Compensation ratio (calculated from NTC)	39%	49%	4%	8%
	Pentalateral impact on physical flows	-26%	-56%	-4%	-14%
Peak	Initial physical flows on adapted base case	1844	4527	113	810
	Compensation ratio (calculated from NTC)	37%	51%	4%	9%
	Pentalateral impact on physical flows	-26%	-55%	-4%	-15%

OFF PEAK

Off Peak constraints on APG, Eles, RTE (South), Swissgrid and Terna 400kV grids and tie-lines

	TSO	Contingency				Constraint				
		U (kV)	Substation 1	Substation 2	Code	Overload	U (kV)	Substation 1	Substation 2	Code
Off Peak	SWG	380	Breite	Laufenburg	N-1	104%	380	Breite	Beznau	
		Preventive action: open 1 transformer 380/220kV at Breite **=> 94% remaining**								
	RTE	380	La Praz	Busbar	A	106% (1')	220	Albertville	Longefan-Randens	
		No cascading effect after tripping (generates a flow of 494 MW from Venaus to Villarodin).								
No more constraint detected with preventive action above.										

PEAK

Peak constraints on APG, Eles, RTE (South), Swissgrid and Terna 400kV grids and tie-lines

	TSO	Contingency				Constraint				
		U (kV)	Substation 1	Substation 2	Code	Overload	U (kV)	Substation 1	Substation 2	Code
Peak	SWG	380	Bonaduz	Sils	N-2	114%	380	Pradella	La Punt	
		Preventive action: 2 nodes at Sils (agreed by SWG but must be confirmed in real time) **=> 95% remaining**								
	SWG / Terna	380	Robbia	Gorlago	N-2	105%	380	Sils	Soazza	
		Preventive action: 2 nodes at Sils (agreed by SWG but must be confirmed in real time) **=> 89% remaining**								
No more constraint detected with preventive action above.										

Final PSTs settings

The tables below present the tap positions and the physical flows on different PSTs with the adaptations described at the top of the page (IT-SI target flow...) and preventive actions (before Pentalateral reduction).

PST	Off Peak	
	Tap position	Physical flow to Italy (MW)
La Praz (1/33)	17	-104
Rondissone 1 (1/33)	30	624
Rondissone 2 (1/33)	32	655
Camporosso (-32/32)	-11	199
Lienz (-32/32)	2	115
Padriciano (1/33)	11	169
Divaca (-32/32 each)	10	630

PST	Peak	
	Tap position	Physical flow to Italy (MW)
La Praz (1/33)	17	258
Rondissone 1 (1/33)	28	661
Rondissone 2 (1/33)	32	721
Camporosso (-32/32)	-14	203
Lienz (-32/32)	-25	120
Padriciano (1/33)	30	146
Divaca (-32/32 each)	-19	677

Conclusion

CWE: No critical constraint detected.
CEE: No constraint detected.
CSE: Critical constraint detected on Pradella - La Punt that is manageable with topological measure at Sils, however the availability of this measure must be confirmed in real time.