

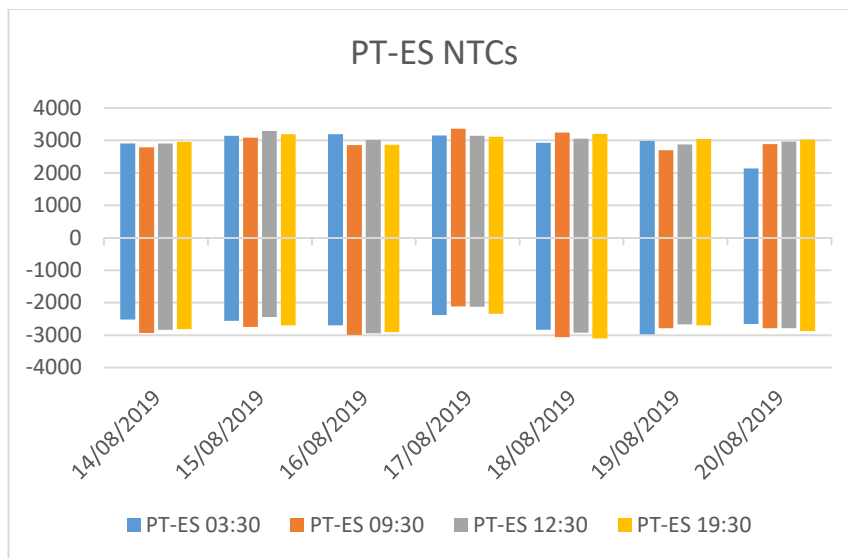
SWE Capacity Calculation report for Stakeholders

The elements in this report are based on ongoing experimentation with continuous tool improvement. The values/limiting elements can still evolve a bit until Go-Live.

This document reports results of the external parallel run from the 14/08/2019 to the 20/08/2019.

PT-ES NTCs

	NTC PT-ES															
	3:30				9:30				12:30				19:30			
	ES>PT		PT>ES		ES>PT		PT>ES		ES>PT		PT>ES		ES>PT		PT>ES	
	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly
20/08/2019	2134	2700	2655	2700	2887	3500	2790	2300	2966	3500	2786	2300	3023	3500	2880	2300
19/08/2019	2980	2700	2970	2700	2698	3500	2785	2300	2878	3500	2666	2300	3044	3500	2700	2300
18/08/2019	2921	2700	2835	2700	3241	2700	3060	2700	3055	2700	2926	2700	3194	3600	3105	2300
17/08/2019	3148	2700	2385	2700	3354	3600	2115	2300	3144	3600	2128	2300	3109	3600	2340	2300
16/08/2019	3187	2700	2700	2600	2855	3550	2991	2500	3010	3550	2942	2500	2868	3550	2911	2500
15/08/2019	3136	2700	2565	2600	3081	2700	2745	2600	3283	2700	2444	2600	3185	3550	2700	2500
14/08/2019	2900	2700	2520	2600	2782	3550	2937	2500	2903	3550	2838	2500	2949	3550	2816	2500



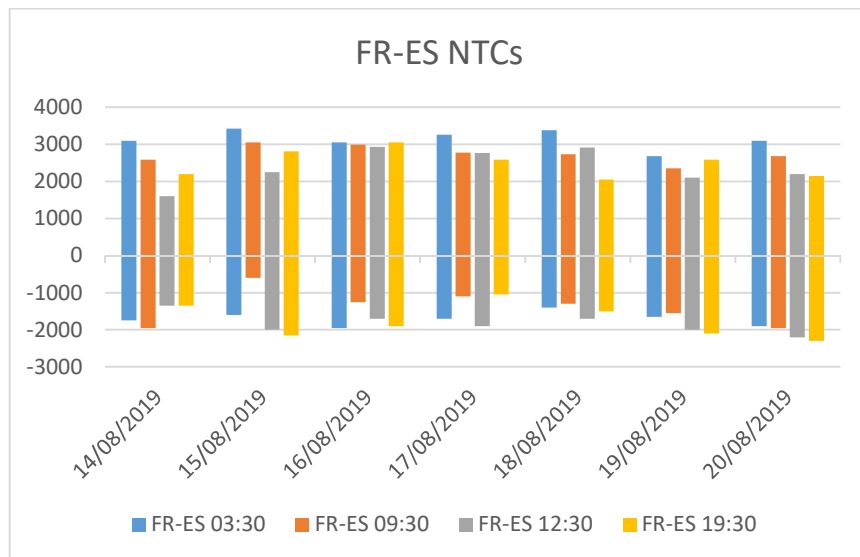
Comments:

No computation failed for the PT-ES border over this fifth week of External parallel run with generally good results. Please note that not all the hours have been validated by TSOs at this moment.

Please keep in mind that today only one voltage angle is monitored during the computation. Multiple voltage angle monitoring should be tackled before Go-Live.

FR-ES NTCs

	NTC FR-ES															
	3:30				9:30				12:30				19:30			
	ES>FR		FR>ES		ES>FR		FR>ES		ES>FR		FR>ES		ES>FR		FR>ES	
	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly	D-2	Weekly
20/08/2019	3099	2900	1900	1500	2683	1200	1950	1600	2200	1200	2200	1600	2150	1200	2300	1600
19/08/2019	2683	2900	1650	1500	2355	1200	1550	1600	2100	1200	2000	1600	2590	1200	2100	1600
18/08/2019	3376	2900	1400	1500	2729	2900	1300	1500	2914	2900	1700	1500	2050	2250	1500	1600
17/08/2019	3262	2900	1700	1500	2775	2250	1100	1600	2763	2250	1900	1600	2590	2250	1050	1600
16/08/2019	3053	2900	1950	1400	2989	1600	1250	1600	2929	1600	1700	1600	3053	1600	1900	1600
15/08/2019	3423	2900	1600	1400	3053	2900	600	1400	2248	2900	2000	1400	2810	1600	2150	1600
14/08/2019	3099	2900	1750	1400	2584	1600	1950	1600	1600	1600	1350	1600	2200	1600	1350	1600



Comments:

No computation failed for the FR-ES border over this fifth week of External parallel run with generally good results. Please note that not all the hours have been validated by TSOs at this moment.

For the moment, the voltage is monitored in the computation but cannot limit the capacity. During External parallel run voltage will be monitored through the local validation of results by TSOs even if it is a common task.

Limiting elements PT-ES

Please find below the 5 limiting elements appearing more often over the period:

Critical Network Elements and Contingencies	Location CNE	Frequency
#1 L-400 kV Interconnector	PT-ES	73%
N-2 Interconnector 400 kV (ES-PT)		73%
#2 L-220 kV Interconnector	PT-ES	18%
N-1 Interconnector 400 kV (ES-PT)		7%
N-1 Interconnector 220 kV (ES-PT)		7%
N-2 Interconnector 400 kV (ES-PT)		4%
#3 GLSK limitation	PT	5%
N Case		5%
#4 L-220 kV	ES	2%
N-2 400 kV DC (ES-ES)		2%
#5 Angle difference	PT	2%
N-2 Interconnector 400 kV (ES-PT)		2%

Limiting elements FR-ES

Please find below the 5 limiting elements appearing more often over the period:

Critical Network Elements and Contingencies	Location CNE	Frequency
#1 L-400 kV	FR-FR	38%
N Case		7%
N-1 400 kV (ES-ES)		2%
N-1 Power Plant (ES-ES)		11%
N-1 Interconnector 220 kV (FR-ES)		2%
N-1 Interconnector 400 kV (FR-ES)		2%
N-1 220 kV (FR-FR)		11%
N-1 400 kV (ES-ES)		3%
#2 L-400 kV	ES-ES	16%
N-1 Power Plant (ES-ES)		2%
N-1 400 kV (ES-ES)		14%
#3 L-220 kV	FR-FR	13%
N-1 400 kV (FR-FR)		2%
N-1 220 kV (FR-FR)		11%
#4 L-220 kV	ES-ES	13%
N-1 400 kV (ES-ES)		4%
N-1 400 kV (ES-ES)		2%
N-1 220 kV (ES-ES)		7%
#5 L-220 kV Interconnector	FR-ES	10%
N-1 220 kV (FR-FR)		8%
N-1 400 kV (FR-FR)		2%