

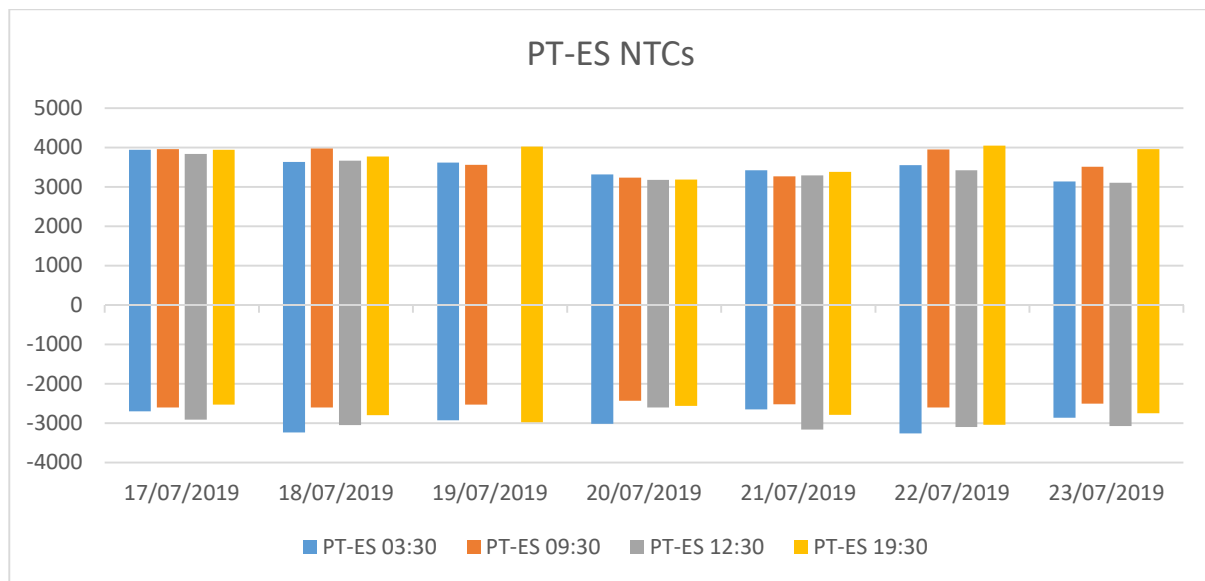
SWE Capacity Calculation report for Stakeholders

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 17/07/2019 to the 23/07/2019.

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
23/07/2019	3133	2700	2864	2150	3513	3100	2503	2700	3105	3100	3076	2700	3958	3300	2747	3000
22/07/2019	3547	2700	3262	2150	3947	3100	2606	2700	3420	3100	3098	2700	4046	3100	3040	2700
21/07/2019	3424	2700	2655	2150	3267	2700	2520	2150	3288	2700	3164	2150	3380	3100	2790	2700
20/07/2019	3316	2700	3015	2150	3230	3100	2430	2700	3177	2950	2605	2100	3182	3100	2565	2700
19/07/2019	3613	2350	2925	2500	3555	2700	2527	1700	N/A	2700	N/A	1700	4021	2700	2981	2450
18/07/2019	3636	2350	3240	2500	3976	2700	2601	2450	3667	2700	3047	2450	3768	2700	2795	2450
17/07/2019	3940	2350	2700	2500	3960	2700	2601	2450	3833	2700	2911	2450	3944	2700	2534	2450



Comments:

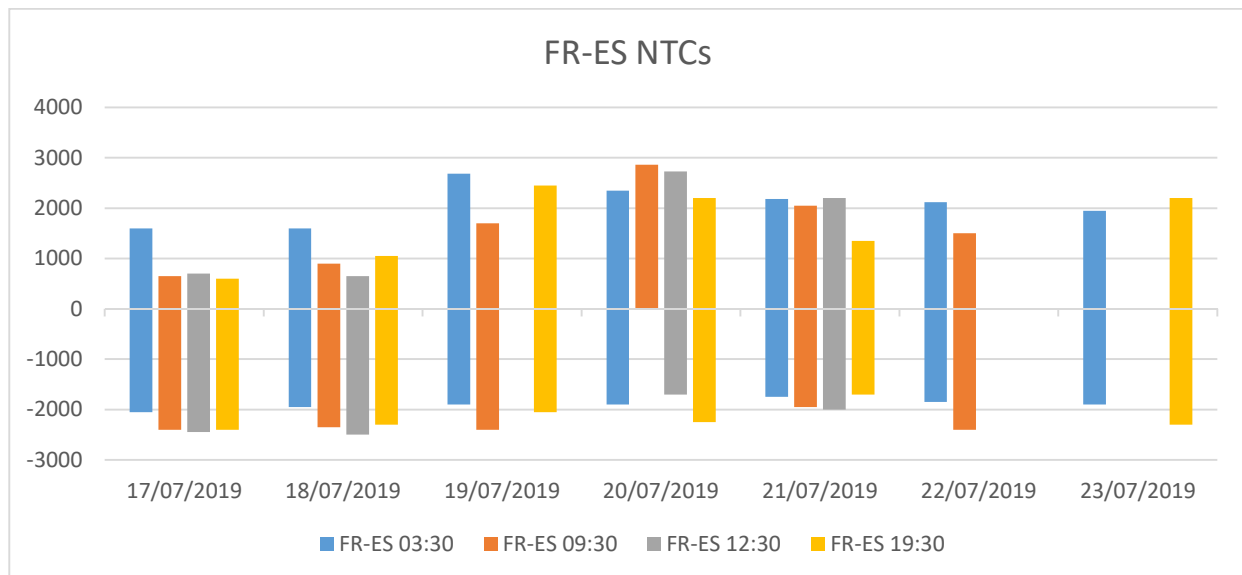
This first week of external parallel run has been the first one with 4 timestamps computed per day. Due to this improvement, we have experienced performance and storage issues that should be tackled shortly.

Only two computations failed for the PT-ES border over this first 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
23/07/2019	1950	2150	1900	1200	N/A	1750	N/A	1200	N/A	1750	N/A	1200	2200	1900	2300	1200
22/07/2019	2117	2250	1850	1200	1500	1750	2400	1200	N/A	1750	N/A	1200	N/A	1750	N/A	1200
21/07/2019	2181	2250	1750	1200	2050	2250	1950	1200	2200	2250	2000	1200	1350	1900	1700	1200
20/07/2019	2350	2250	1900	1200	2860	1900	N/A	1200	2729	1900	1700	1200	2200	1900	2250	1200
19/07/2019	2683	2650	1900	1200	1700	2150	2400	1250	N/A	2150	N/A	1250	2450	2150	2050	1250
18/07/2019	1600	2650	1950	1200	900	2150	2350	1250	650	2150	2500	1250	1050	2150	2300	1250
17/07/2019	1600	2650	2050	1200	650	2150	2400	1250	700	2150	2450	1250	600	2150	2400	1250



Comments:

This first week of external parallel run has been the first one with 4 timestamps computed per day. Due to this improvement, we have experienced performance and storage issues that should be tackled shortly.

Only eleven computations failed for the FR-ES border over this first 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:

	PT-ES most frequent CNE	Location	Frequency	PT-ES most frequent Contingency	Frequency
#1	L-220 kV	ES-ES	68%	N-2 400 KV	68%
#2	L-400 kV	PT-ES	9%	N-2 400 KV Interconnector	15%
#3	L-220 kV	PT-ES	7%	N-1 400 KV Interconnector	6%
#4	Computation failed		4%	N-1 400 kV	4%
#5	GLSK limitation	PT	4%	N state	4%

Limiting elements FR-ES

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

	FR-ES most frequent CNE	Location	Frequency	FR-ES most frequent Contingency	Frequency
#1	L-400 kV	FR-FR	36%	N state	43%
#2	L-220 kV	FR-ES	18%	N-1 L-400 kV	13%
#3	L-220 kV	FR-FR	9%	N-1 L-220 kV	11%
#4	Computation failed		9%	Computation failed	9%
#5	L-220 kV	FR-ES	4%	N-1 Power plant	6%