

# SWE Intraday Capacity Calculation external report

This document reports results of the external parallel run from the 17/01/2022 to the 23/01/2022.

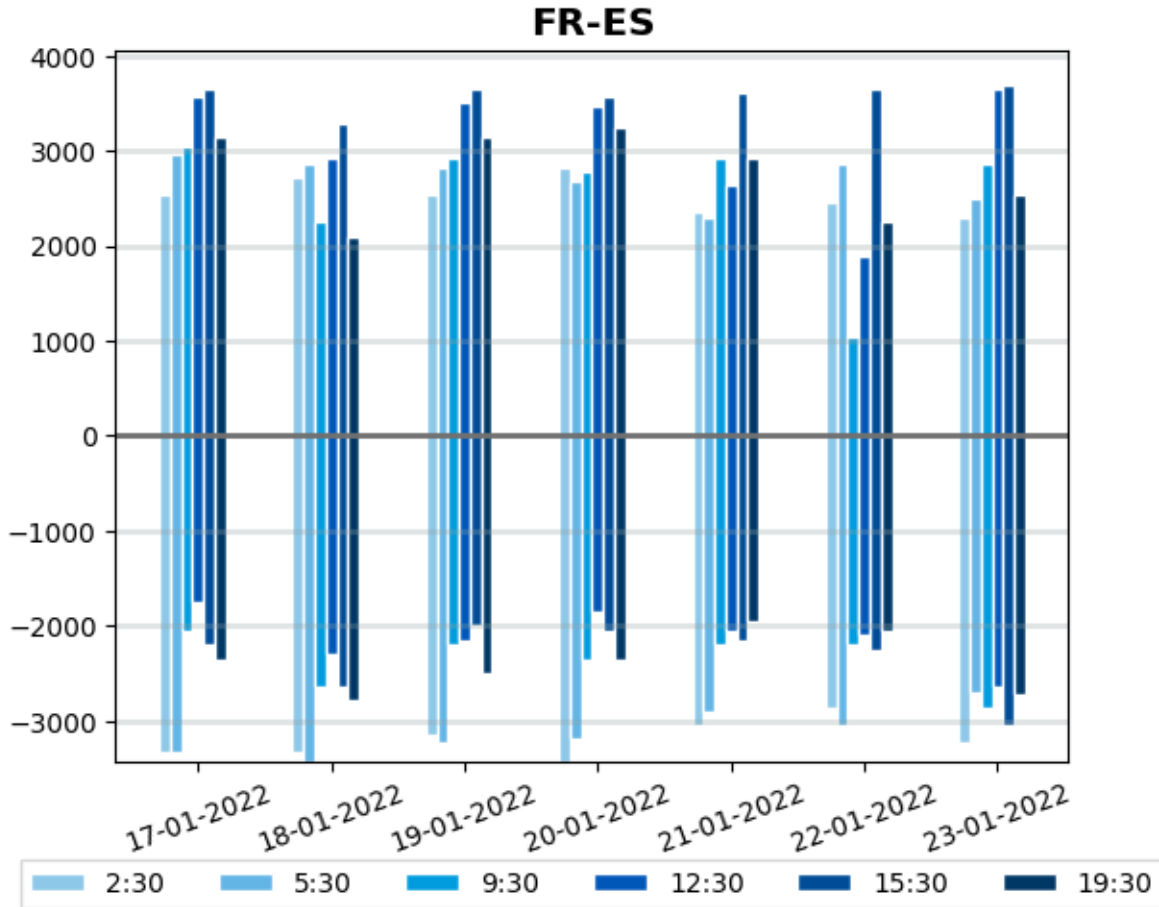
## FR-ES NTCs

|            | 2:30  |              |       |              | 5:30  |              |       |              | 9:30  |              |       |              |
|------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|
|            | ES-FR |              | FR-ES |              | ES-FR |              | FR-ES |              | ES-FR |              | FR-ES |              |
|            | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run |
| 17-01-2022 | 3330  | 3330         | 2543  | 2543         | 3330  | 3330         | 2960  | 2960         | 2050  | 2050         | 3052  | 3052         |
| 18-01-2022 | 3191  | 3330         | 3052  | 2728         | 3098  | 3422         | 2960  | 2867         | 2100  | 2636         | 2960  | 2250         |
| 19-01-2022 | 3145  | 3145         | 2543  | 2543         | 3237  | 3237         | 2821  | 2821         | 2200  | 2200         | 2913  | 2913         |
| 20-01-2022 | 3237  | 3422         | 2300  | 2821         | 3191  | 3191         | 2682  | 2682         | 2300  | 2350         | 3145  | 2775         |
| 21-01-2022 | 3145  | 3052         | 2682  | 2350         | 3052  | 2913         | 2867  | 2300         | 1800  | 2200         | 3283  | 2913         |
| 22-01-2022 | 2590  | 2867         | 2636  | 2450         | 2821  | 3052         | 2775  | 2867         | 2400  | 2200         | 3098  | 1050         |
| 23-01-2022 | 3237  | 3237         | 2300  | 2300         | 2700  | 2700         | 2500  | 2500         | 2867  | 2867         | 2867  | 2867         |

\*Blue cells represent IT issues that do not require IDCC value replacement. Yellow cells represent IT issues that require IDCC values replacement by D-2 values. Red cells represent IT issues that requires IDCC values replacement but D-2 values were not available hence LTCC values were used.

|            | 12:30 |              |       |              | 15:30 |              |       |              | 19:30 |              |       |              |
|------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|
|            | ES-FR |              | FR-ES |              | ES-FR |              | FR-ES |              | ES-FR |              | FR-ES |              |
|            | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run |
| 17-01-2022 | 1750  | 1750         | 3561  | 3561         | 2200  | 2200         | 3653  | 3653         | 2350  | 2350         | 3145  | 3145         |
| 18-01-2022 | 2250  | 2300         | 3746  | 2913         | 2350  | 2636         | 3653  | 3283         | 2590  | 2775         | 2867  | 2100         |
| 19-01-2022 | 2150  | 2150         | 3515  | 3515         | 2000  | 2000         | 3653  | 3653         | 2497  | 2497         | 3145  | 3145         |
| 20-01-2022 | 1850  | 1850         | 3468  | 3468         | 2050  | 2050         | 3561  | 3561         | 2350  | 2350         | 3237  | 3237         |
| 21-01-2022 | 1900  | 2050         | 3653  | 2636         | 2300  | 2150         | 3653  | 3607         | 2050  | 1950         | 3191  | 2913         |
| 22-01-2022 | 2400  | 2100         | 3653  | 1900         | 2400  | 2250         | 3653  | 3653         | 2636  | 2050         | 3006  | 2250         |
| 23-01-2022 | 2636  | 2636         | 3653  | 3653         | 3052  | 3052         | 3700  | 3700         | 2728  | 2728         | 2543  | 2543         |

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#### Comments

On FR-ES border, 50 computations failed during this week of external parallel run.  
42 failed computations were replaced by D-2 values as fallback procedure.

#### PT-ES NTCs

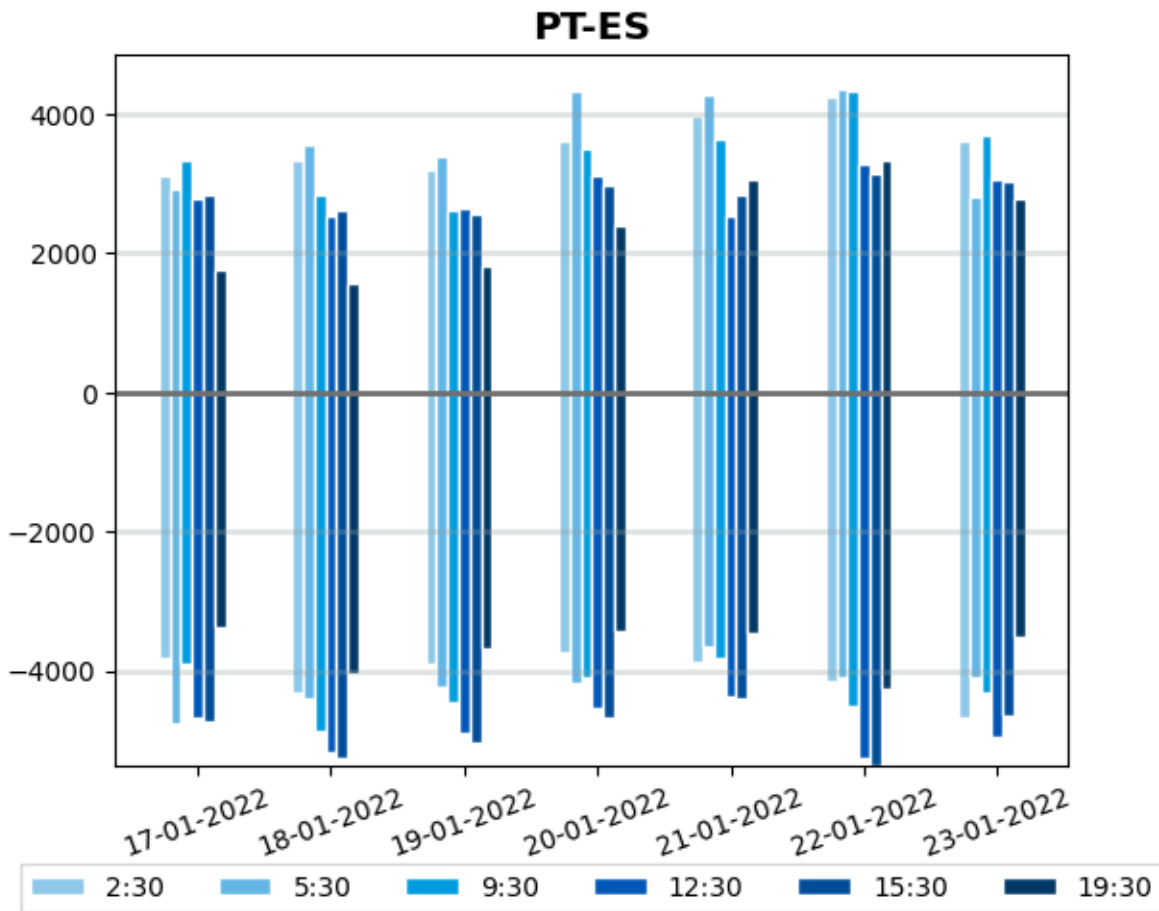
|            | 2:30  |              |       |              | 5:30  |              |       |              | 9:30  |              |       |              |
|------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|
|            | ES-PT |              | PT-ES |              | ES-PT |              | PT-ES |              | ES-PT |              | PT-ES |              |
|            | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run |
| 17-01-2022 | 3825  | 3825         | 3105  | 3105         | 4770  | 4770         | 2925  | 2925         | 3915  | 3915         | 3330  | 3330         |
| 18-01-2022 | 4230  | 4320         | 3105  | 3330         | 4455  | 4410         | 3150  | 3555         | 4410  | 4860         | 3105  | 2835         |
| 19-01-2022 | 3915  | 3915         | 3195  | 3195         | 4230  | 4230         | 3375  | 3375         | 4455  | 4455         | 2610  | 2610         |
| 20-01-2022 | 3915  | 3735         | 3960  | 3600         | 4185  | 4185         | 4320  | 4320         | 3600  | 4095         | 3825  | 3510         |
| 21-01-2022 | 3555  | 3870         | 4005  | 3960         | 3960  | 3645         | 4365  | 4275         | 3465  | 3825         | 3510  | 3645         |
| 22-01-2022 | 3960  | 4140         | 4050  | 4230         | 4140  | 4095         | 4230  | 4365         | 4455  | 4500         | 3195  | 4320         |
| 23-01-2022 | 4680  | 4680         | 3600  | 3600         | 4100  | 4100         | 2799  | 2799         | 4320  | 4320         | 3690  | 3690         |

\*Blue cells represent IT issues that do not require IDCC value replacement. Yellow cells represent IT issues that require IDCC values replacement by D-2 values. Red cells represent IT issues that requires IDCC values replacement but D-2 values were not available hence LTCC

values were used.

|            | 12:30 |              |       |              | 15:30 |              |       |              | 19:30 |              |       |              |
|------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|
|            | ES-PT |              | PT-ES |              | ES-PT |              | PT-ES |              | ES-PT |              | PT-ES |              |
|            | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run | D-2   | IDCC 1st run |
| 17-01-2022 | 4680  | 4680         | 2790  | 2790         | 4725  | 4725         | 2835  | 2835         | 3375  | 3375         | 1755  | 1755         |
| 18-01-2022 | 4725  | 5175         | 2700  | 2520         | 4680  | 5265         | 2700  | 2610         | 4500  | 4050         | 1665  | 1575         |
| 19-01-2022 | 4905  | 4905         | 2655  | 2655         | 5040  | 5040         | 2565  | 2565         | 3690  | 3690         | 1800  | 1800         |
| 20-01-2022 | 4545  | 4545         | 3105  | 3105         | 4680  | 4680         | 2970  | 2970         | 3420  | 3420         | 2385  | 2385         |
| 21-01-2022 | 4545  | 4365         | 3015  | 2520         | 4590  | 4410         | 2880  | 2835         | 3420  | 3465         | 3015  | 3060         |
| 22-01-2022 | 4905  | 5265         | 2925  | 3285         | 4680  | 5355         | 3060  | 3150         | 4140  | 4275         | 3510  | 3330         |
| 23-01-2022 | 4950  | 4950         | 3060  | 3060         | 4635  | 4635         | 3015  | 3015         | 3510  | 3510         | 2790  | 2790         |

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## Comments

On PT-ES border, 45 computations failed during this week of external parallel run.  
42 failed computations were replaced by D-2 values as fallback procedure.

## Limiting elements FR-ES

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

|           | CNEs and associated Contingencies | CNE Location | Frequency (%) |
|-----------|-----------------------------------|--------------|---------------|
| <b>#1</b> | <b>IT Issue</b>                   |              | <b>55.6 %</b> |
|           | Base Case                         |              | 55.6 %        |
| <b>#2</b> | <b>Tie Line 220 kV</b>            | <b>FR-ES</b> | <b>22.2 %</b> |
|           | N-1 Contingency 400 kV [FR-ES]    |              | 11.1 %        |
|           | N-1 Contingency 400 kV [FR-ES]    |              | 11.1 %        |
| <b>#3</b> | <b>Tie Line 225 kV</b>            | <b>FR-ES</b> | <b>22.2 %</b> |
|           | N-1 Contingency 400 kV [FR-ES]    |              | 22.2 %        |

## Limiting elements ES-FR

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

|           | CNEs and associated Contingencies | CNE Location | Frequency (%) |
|-----------|-----------------------------------|--------------|---------------|
| <b>#1</b> | <b>Tie Line 220 kV</b>            | <b>FR-ES</b> | <b>69.3 %</b> |
|           | N-1 Contingency 400 kV [ES-FR]    |              | 69.3 %        |
| <b>#2</b> | <b>Tie Line 400 kV</b>            | <b>FR-ES</b> | <b>11.4 %</b> |
|           | Base Case                         |              | 11.4 %        |
| <b>#3</b> | <b>Branch</b>                     | <b>FR</b>    | <b>8.0 %</b>  |
|           | N-1 Contingency 400 kV [FR]       |              | 8.0 %         |
| <b>#4</b> | <b>Branch 220 kV</b>              | <b>ES</b>    | <b>5.7 %</b>  |
|           | Base Case                         |              | 5.7 %         |
| <b>#5</b> | <b>Tie Line 225 kV</b>            | <b>FR-ES</b> | <b>4.5 %</b>  |
|           | Base Case                         |              | 3.4 %         |
|           | N-1 Contingency 400 kV [FR]       |              | 1.1 %         |
| <b>#6</b> | <b>Branch 220 kV</b>              | <b>ES</b>    | <b>1.1 %</b>  |
|           | N-2 Contingency 400 kV [ES]       |              | 1.1 %         |

## Limiting elements PT-ES

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

|           | CNEs and associated Contingencies | CNE Location | Frequency (%) |
|-----------|-----------------------------------|--------------|---------------|
| <b>#1</b> | <b>Tie Line 400 kV</b>            | <b>ES-PT</b> | <b>56.5 %</b> |
|           | N-2 Contingency 400 kV [PT-ES]    |              | 56.5 %        |
| <b>#2</b> | <b>GLSK limitation</b>            |              | <b>41.3 %</b> |
|           | Base Case                         |              | 41.3 %        |
| <b>#3</b> | <b>Angle Limitation</b>           | <b>PT</b>    | <b>2.2 %</b>  |

|                                |       |
|--------------------------------|-------|
| N-2 Contingency 400 kV [PT-ES] | 2.2 % |
|--------------------------------|-------|

\*GLSK limitation row includes GLSK limitations and flow divergences divisions

### Limiting elements ES-PT

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

|           | CNEs and associated Contingencies | CNE Location | Frequency (%) |
|-----------|-----------------------------------|--------------|---------------|
| <b>#1</b> | <b>Angle Limitation</b>           | <b>PT</b>    | <b>60.2 %</b> |
|           | N-2 Contingency 400 kV [ES-PT]    |              | 60.2 %        |
| <b>#2</b> | <b>Branch 400 kV</b>              | <b>PT</b>    | <b>33.8 %</b> |
|           | N-2 Contingency 400 kV [PT-ES]    |              | 33.8 %        |
| <b>#4</b> | <b>GLSK limitation</b>            |              | <b>6.0 %</b>  |
|           | Base Case                         |              | 6.0 %         |

\*GLSK limitation row includes GLSK limitations and flow divergences divisions