

European Resource Adequacy Assessment

2021 Edition

Annex 6: Results Benchmarking

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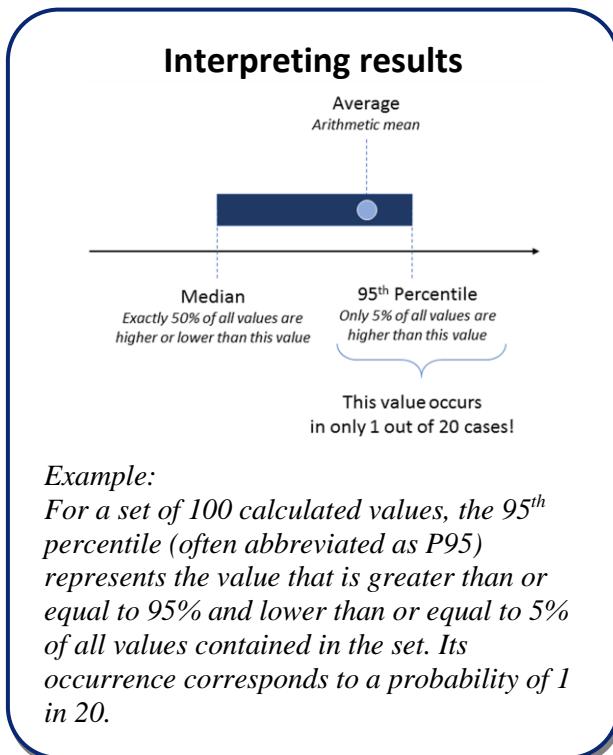
1 Detailed Adequacy Results

As introduced in the executive summary, five modelling tools were used for the adequacy assessment to provide a benchmark for the results of the reference tool (the EVA results being calculated only by the reference tool). Each tool used the same input data and modelling assumptions (with the exception of forced outage patterns) to build aligned models with aligned results. The results of each simulation include values of loss of load duration (LLD) and energy not served (ENS), which are aggregated in sets of LLDs and ENSs per bidding zone and modelling tool.

The bar charts that follow (Figures 1–13) illustrate the simulation results for each available TY by country and modelling tool. For each scenario, the 50th and 95th percentile values of LLD and ENS as well as the average LLD (i.e., LOLE) and average ENS (i.e., EENS) are shown (See Annex 3 for the definitions of LLD, LOLE, ENS, EENS).

Rows for a given country and tool with strictly null results are not displayed. The results data can be found on the ERAA 2021 website¹.

The asterisk in the tool legend identifies the reference tool for ERAA 2021.



¹ <https://www.entsoe.eu/outlooks/eraa/>

1.1 National estimates scenario

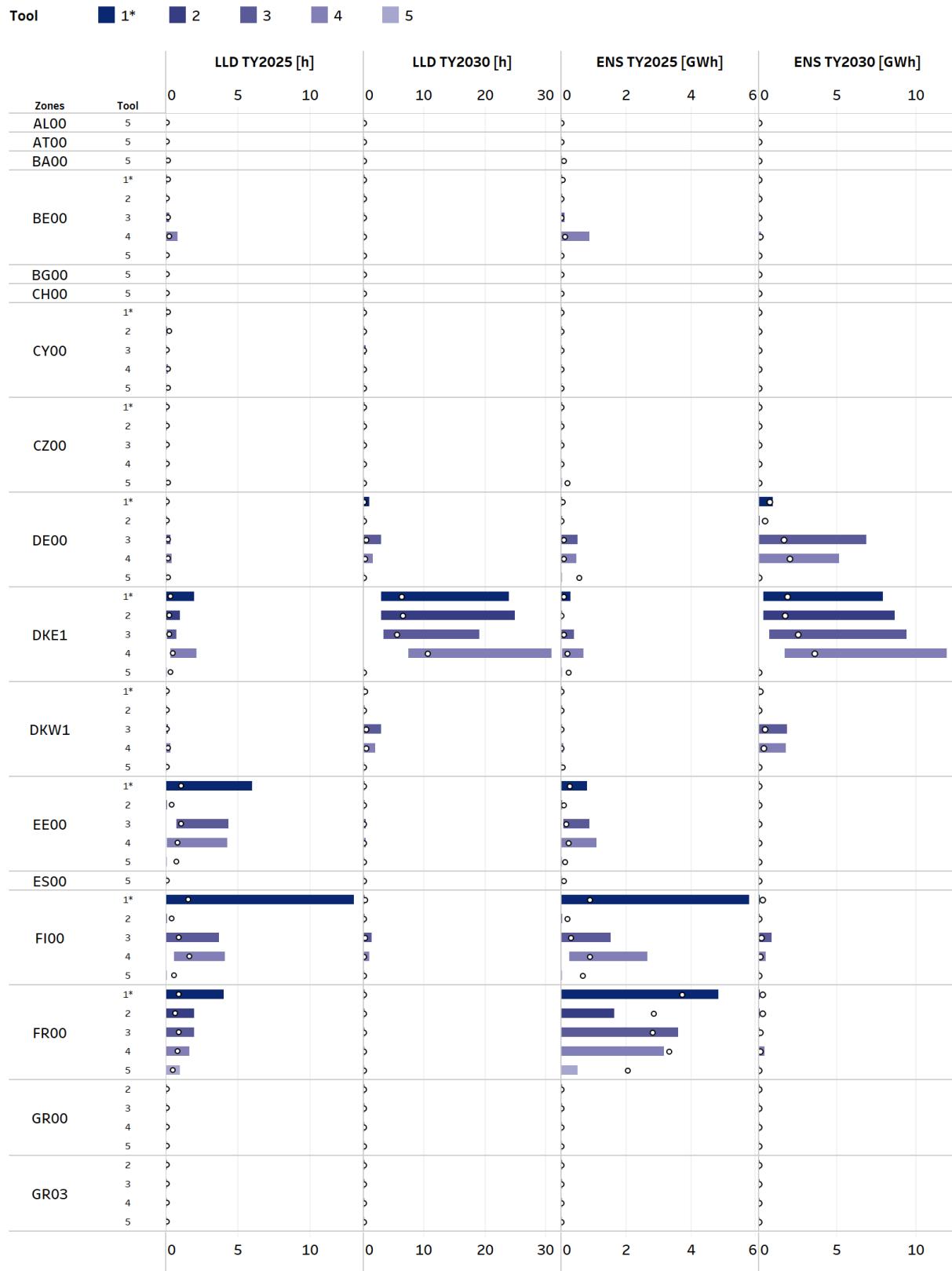


Figure 1: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 1)

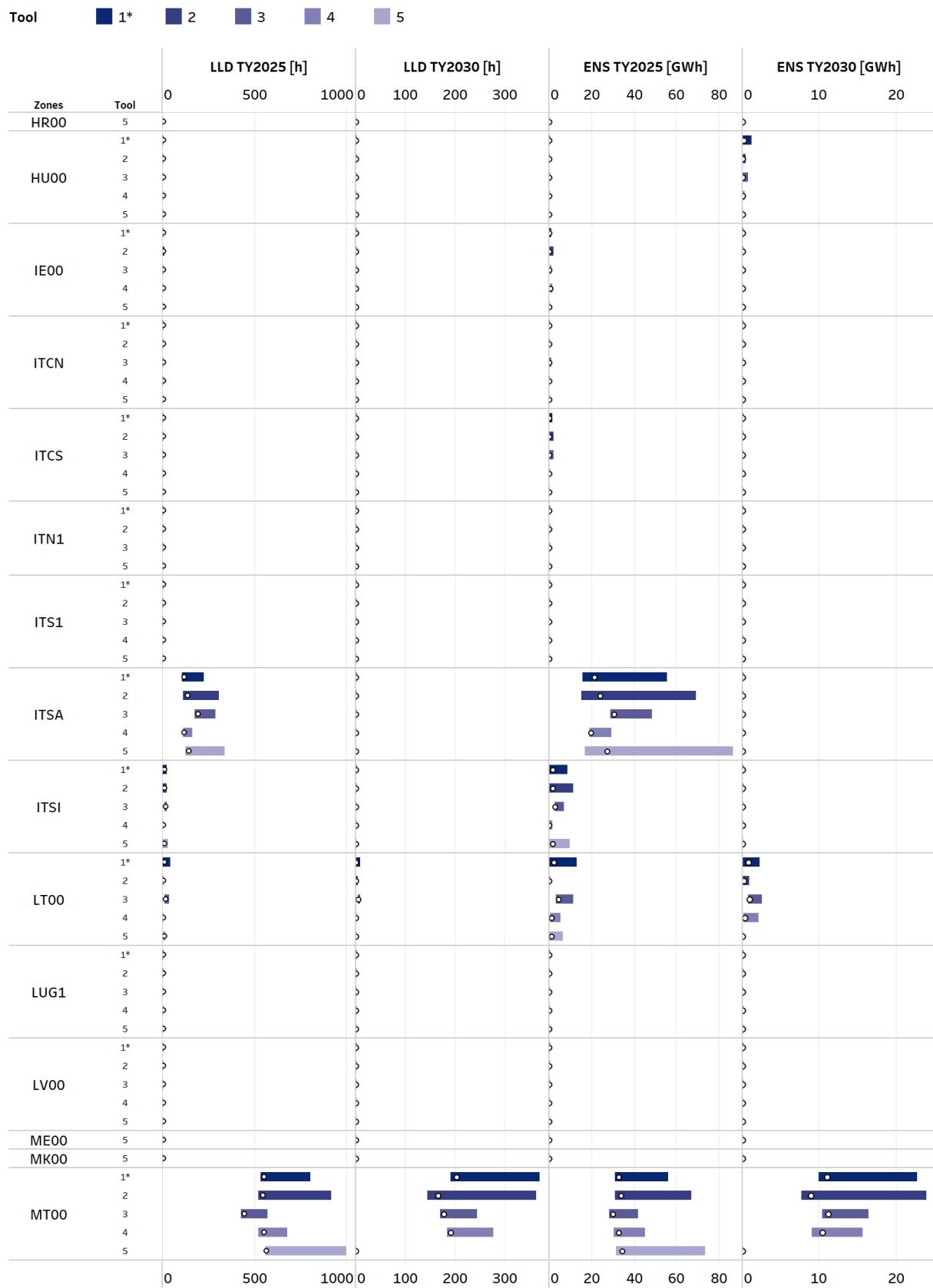


Figure 2: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 2)

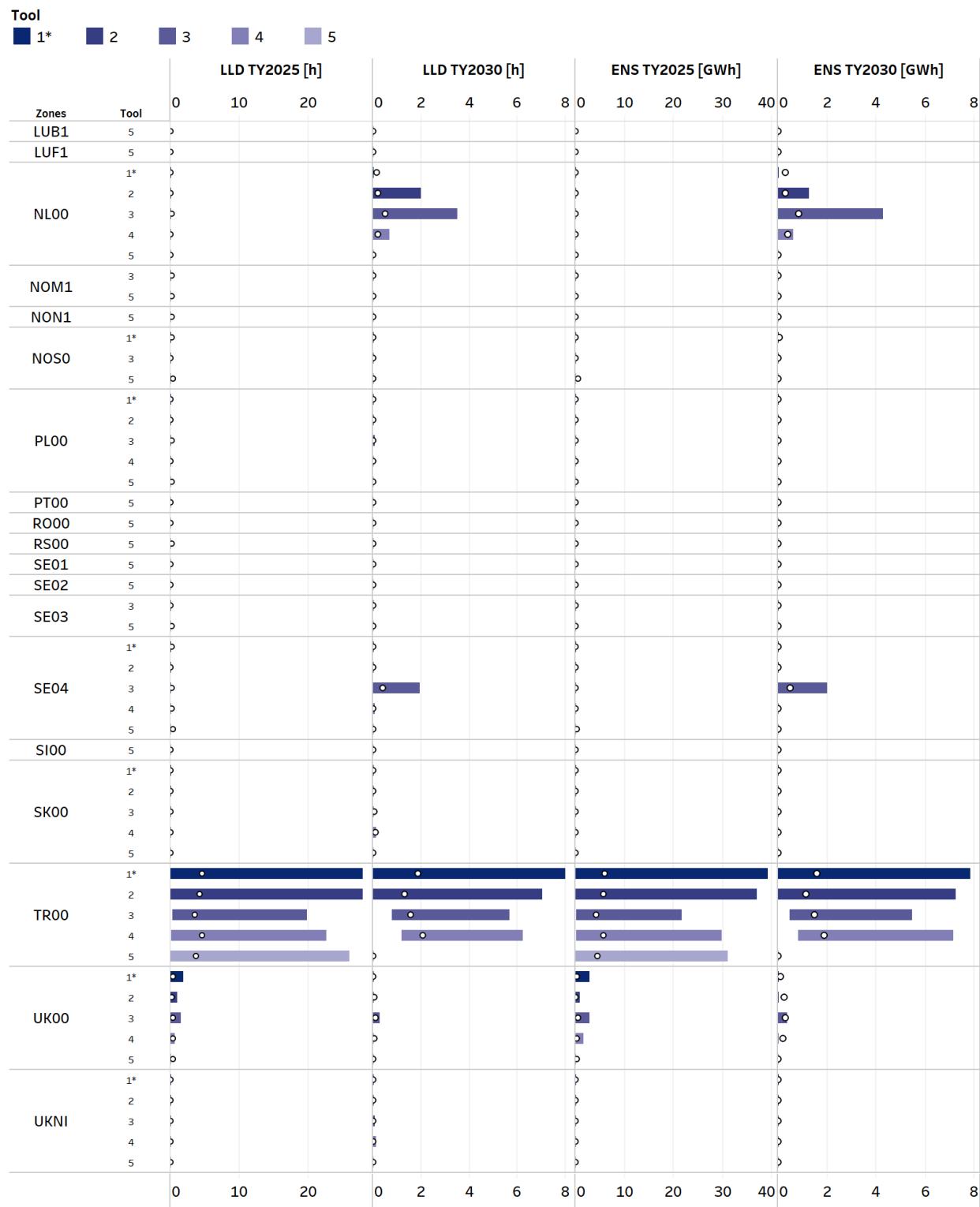


Figure 3: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 3)

1.2 Central reference scenario without capacity mechanism

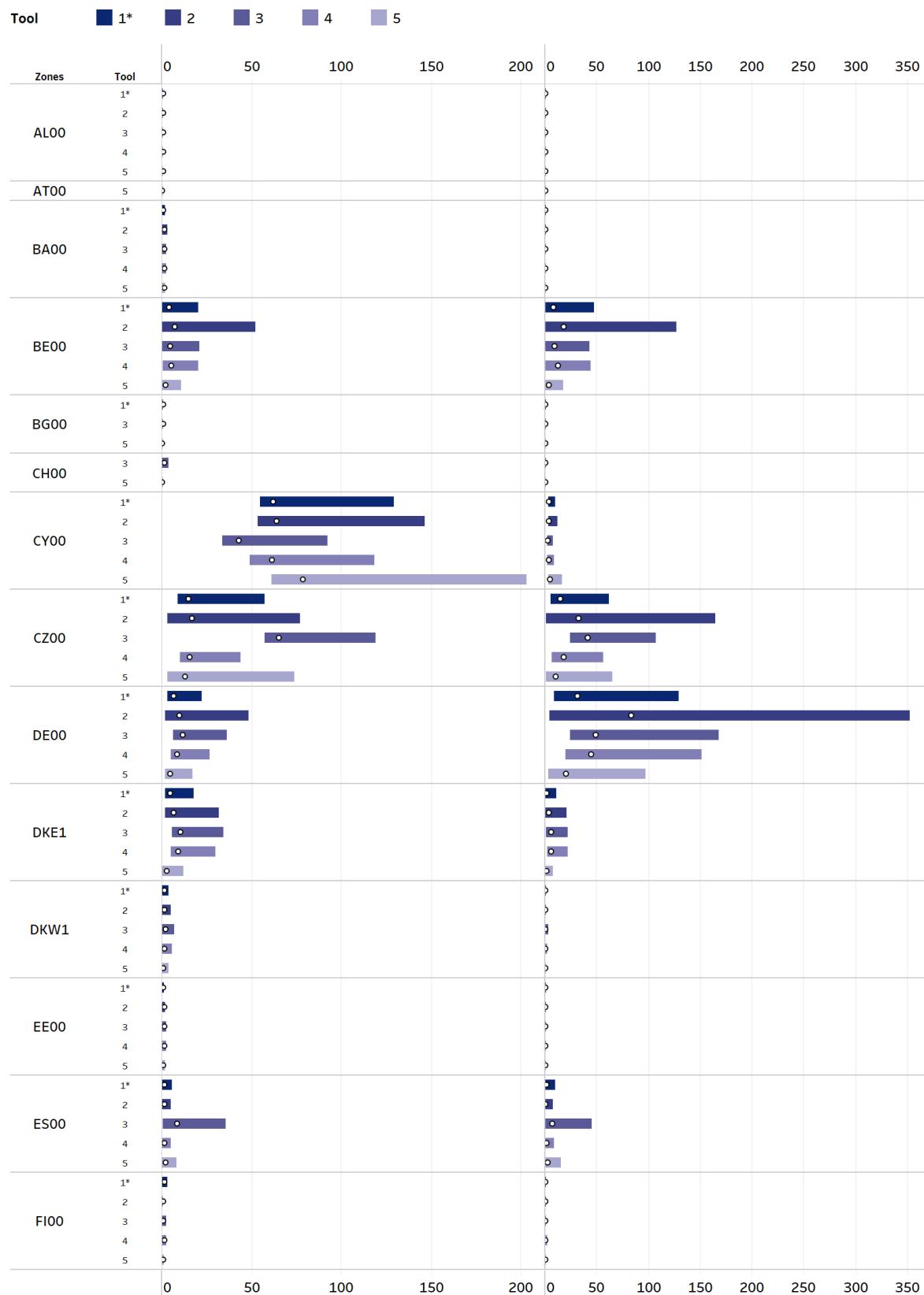


Figure 4: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 1)

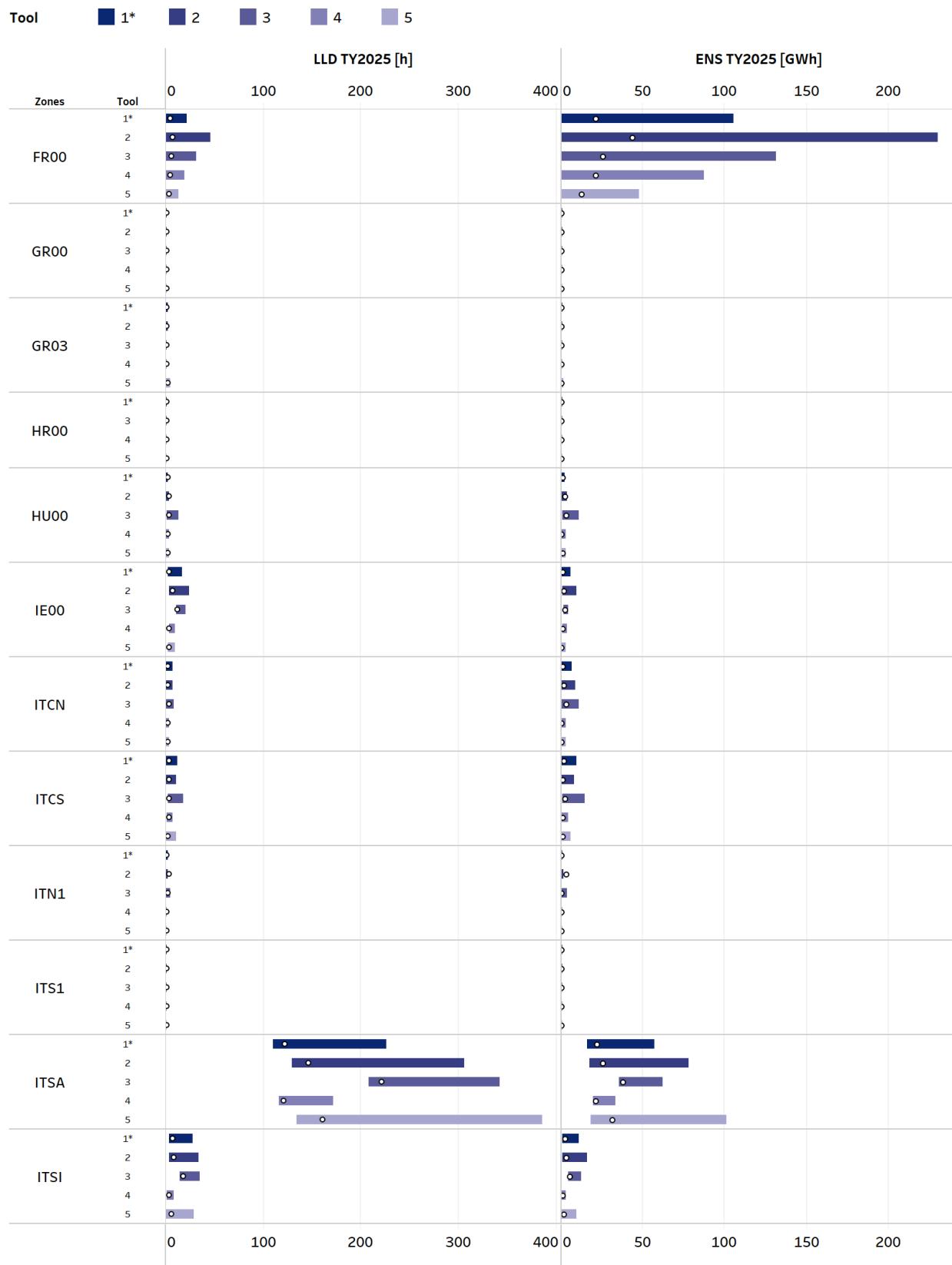


Figure 5: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 2)

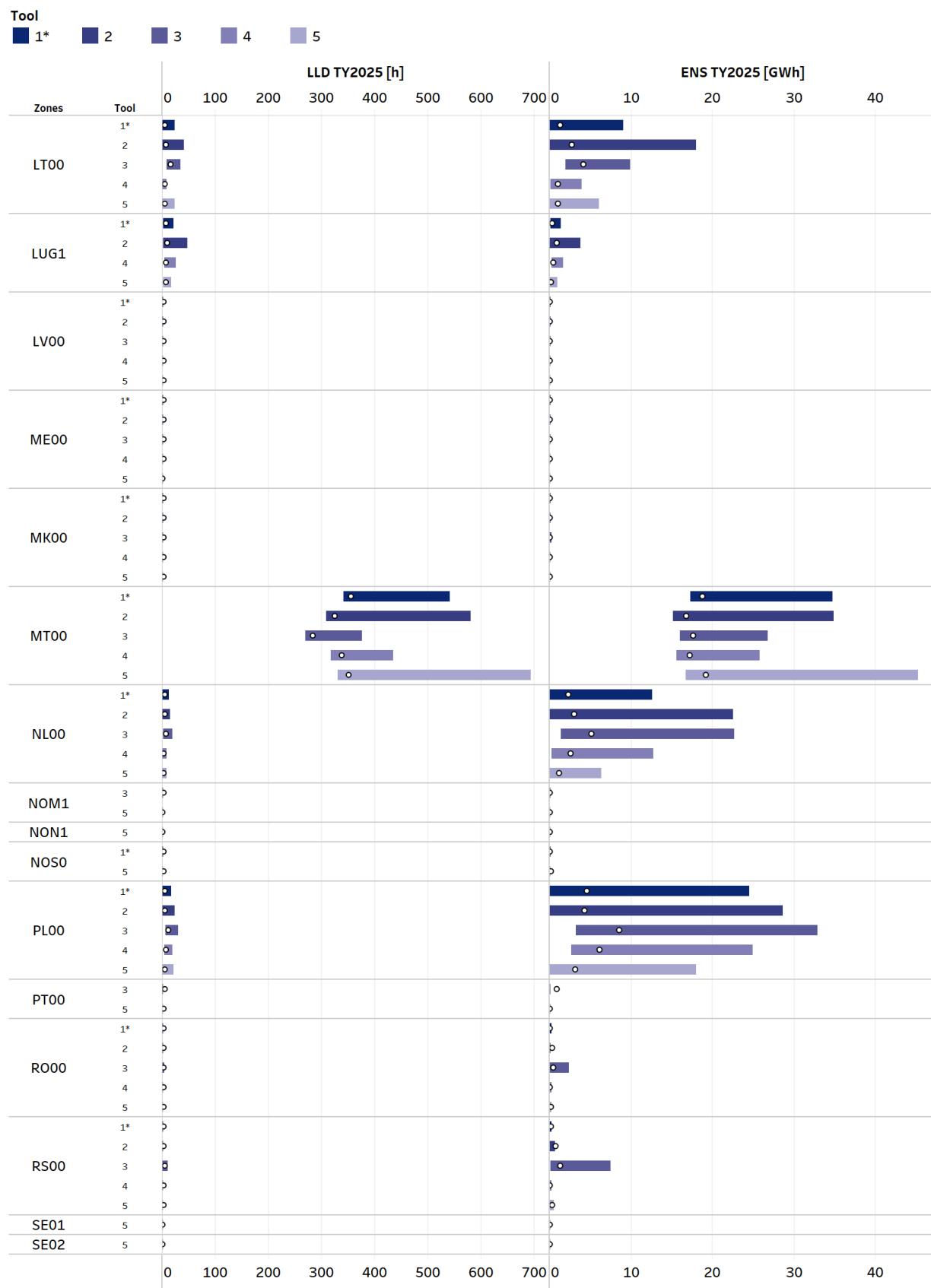


Figure 6: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 3)

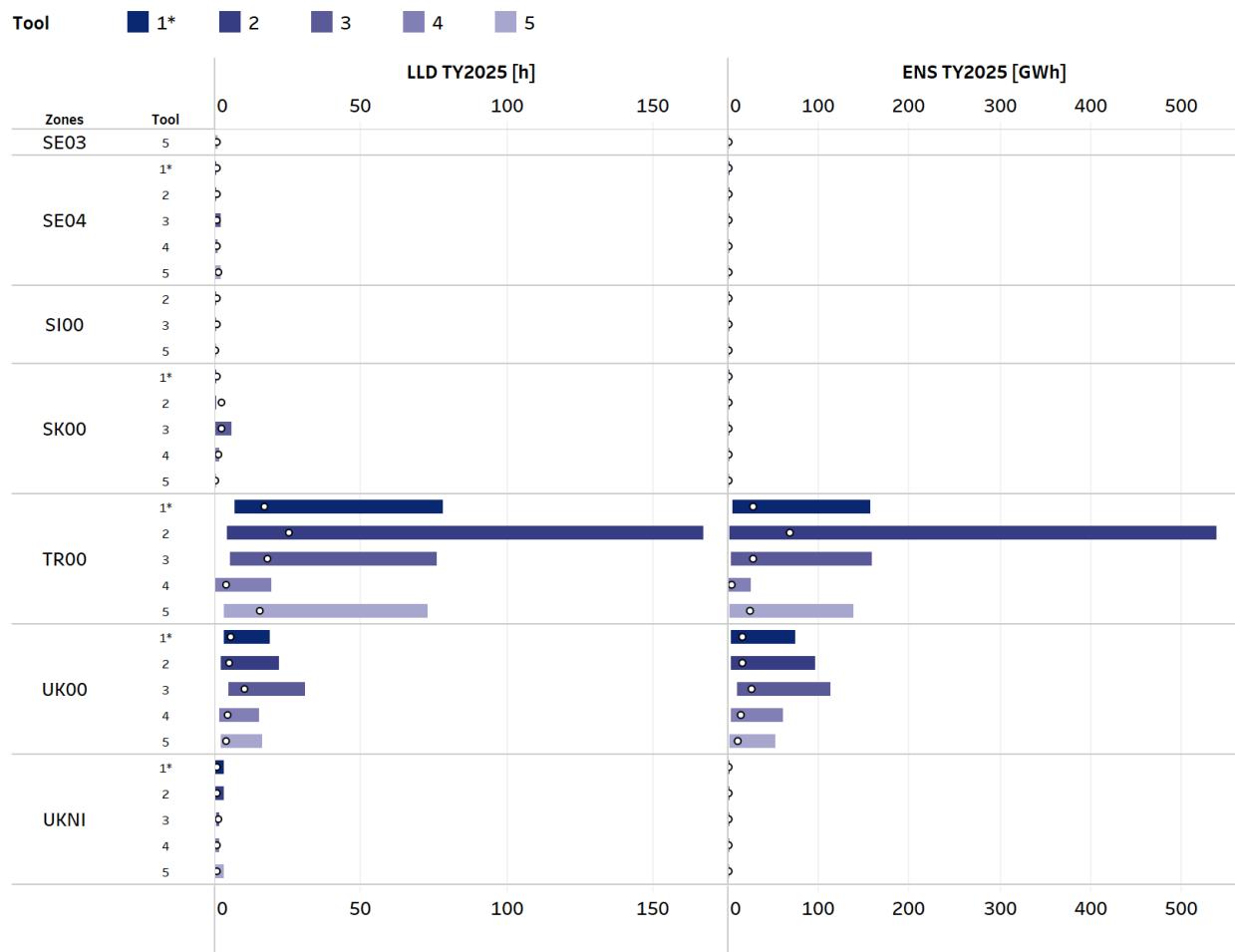


Figure 7: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 4)

1.3 Central reference scenario with capacity mechanism

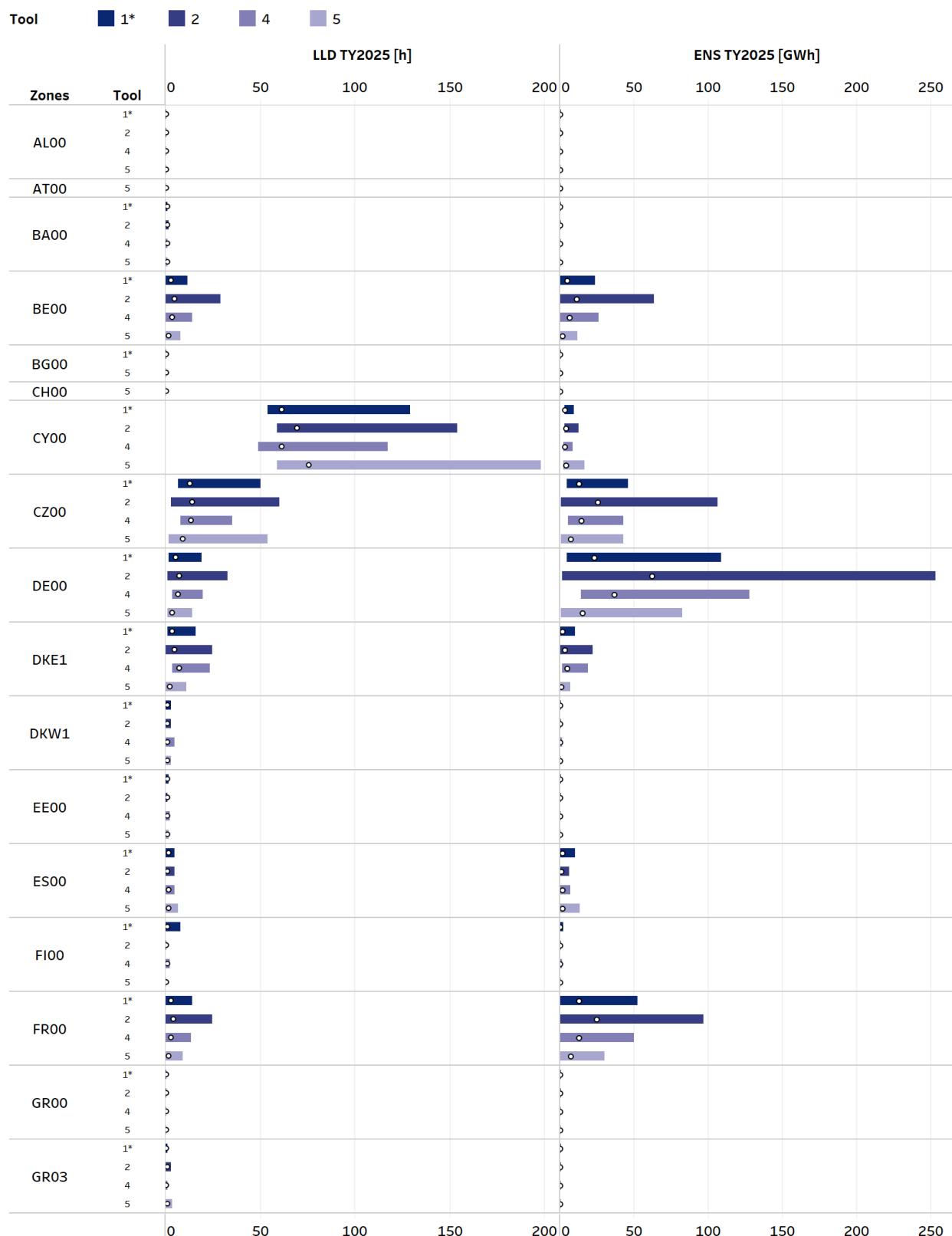


Figure 8: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 1)

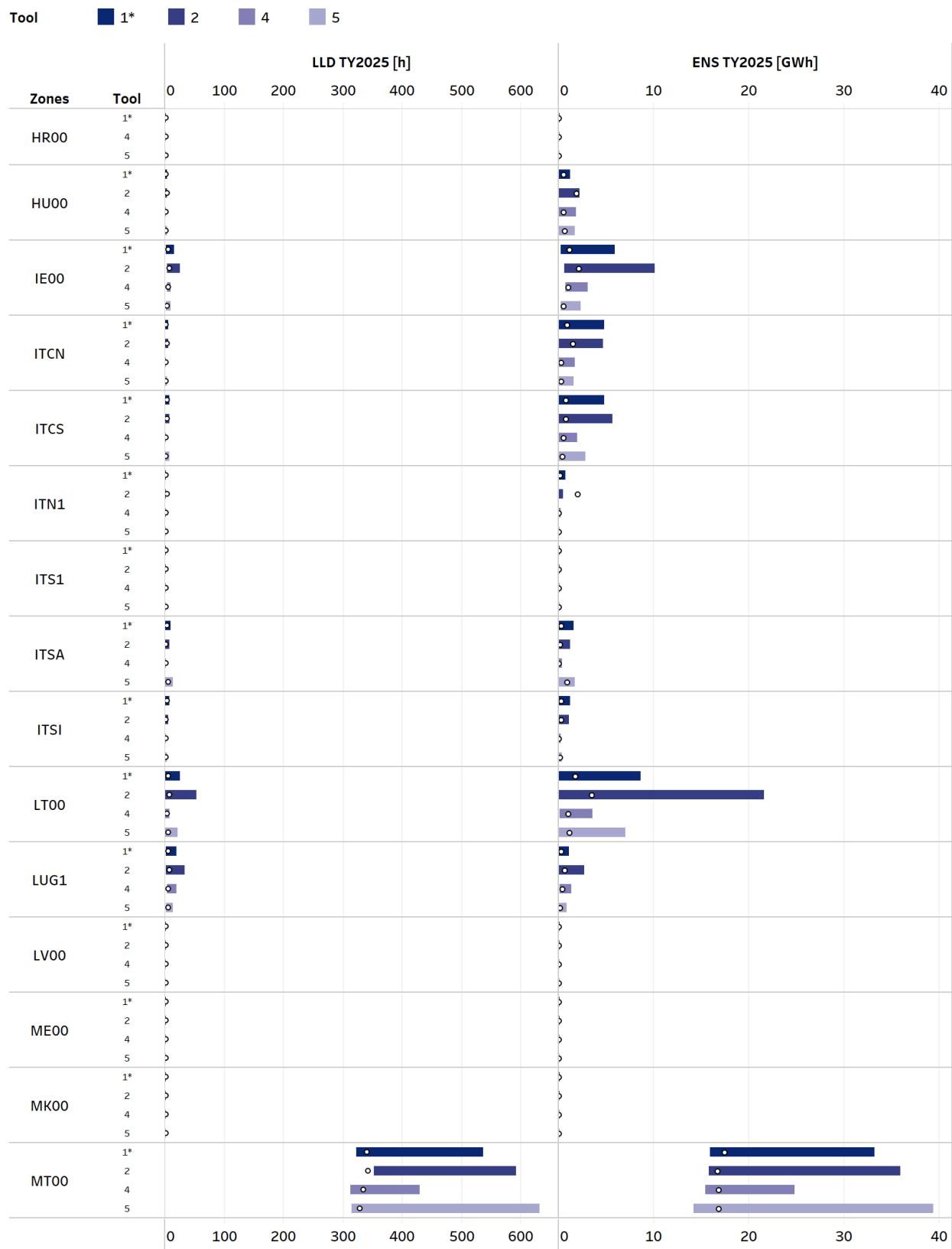


Figure 9: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 2)

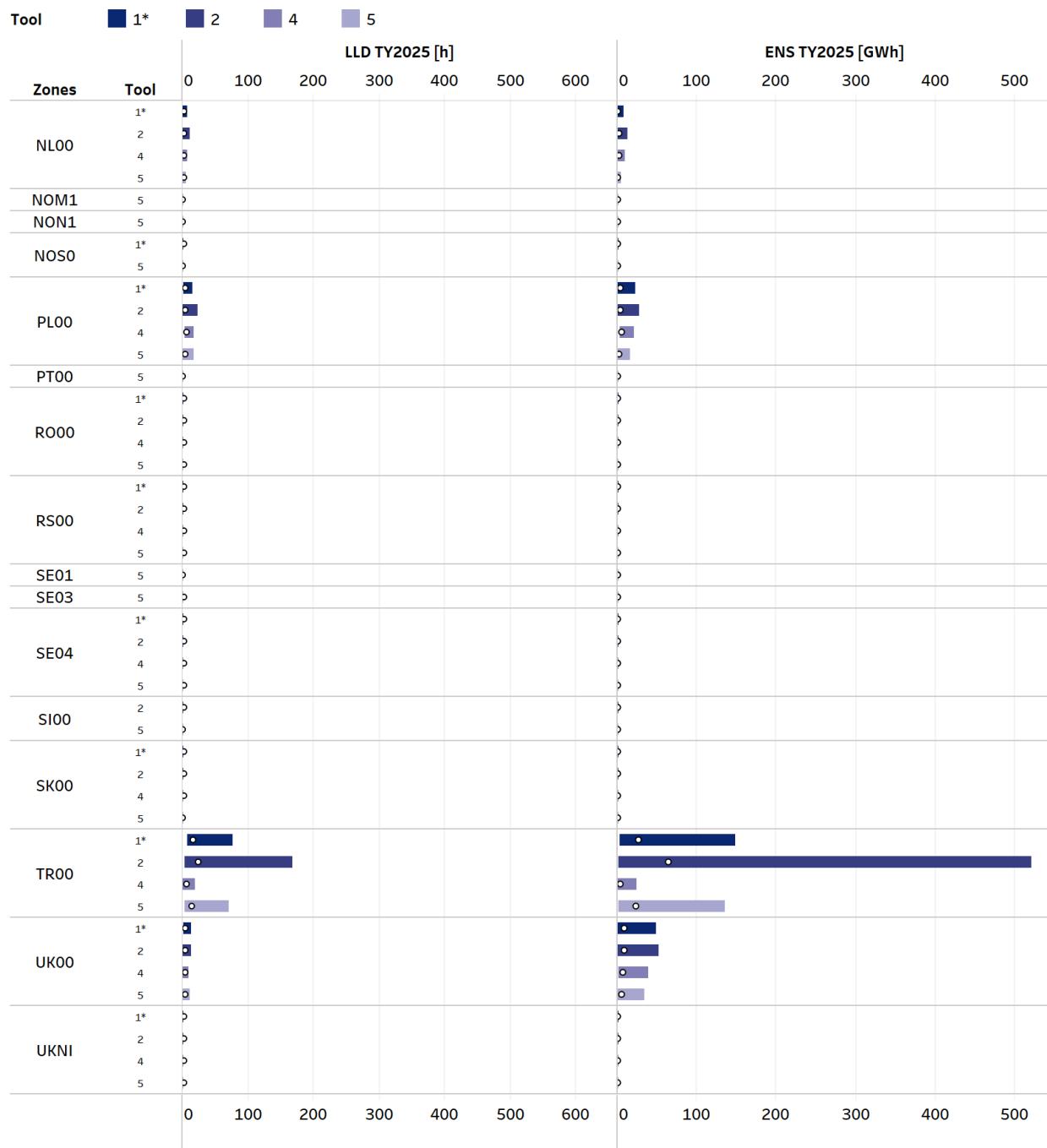


Figure 10: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 (Part 3)

1.4 National estimates with low thermal capacity scenario

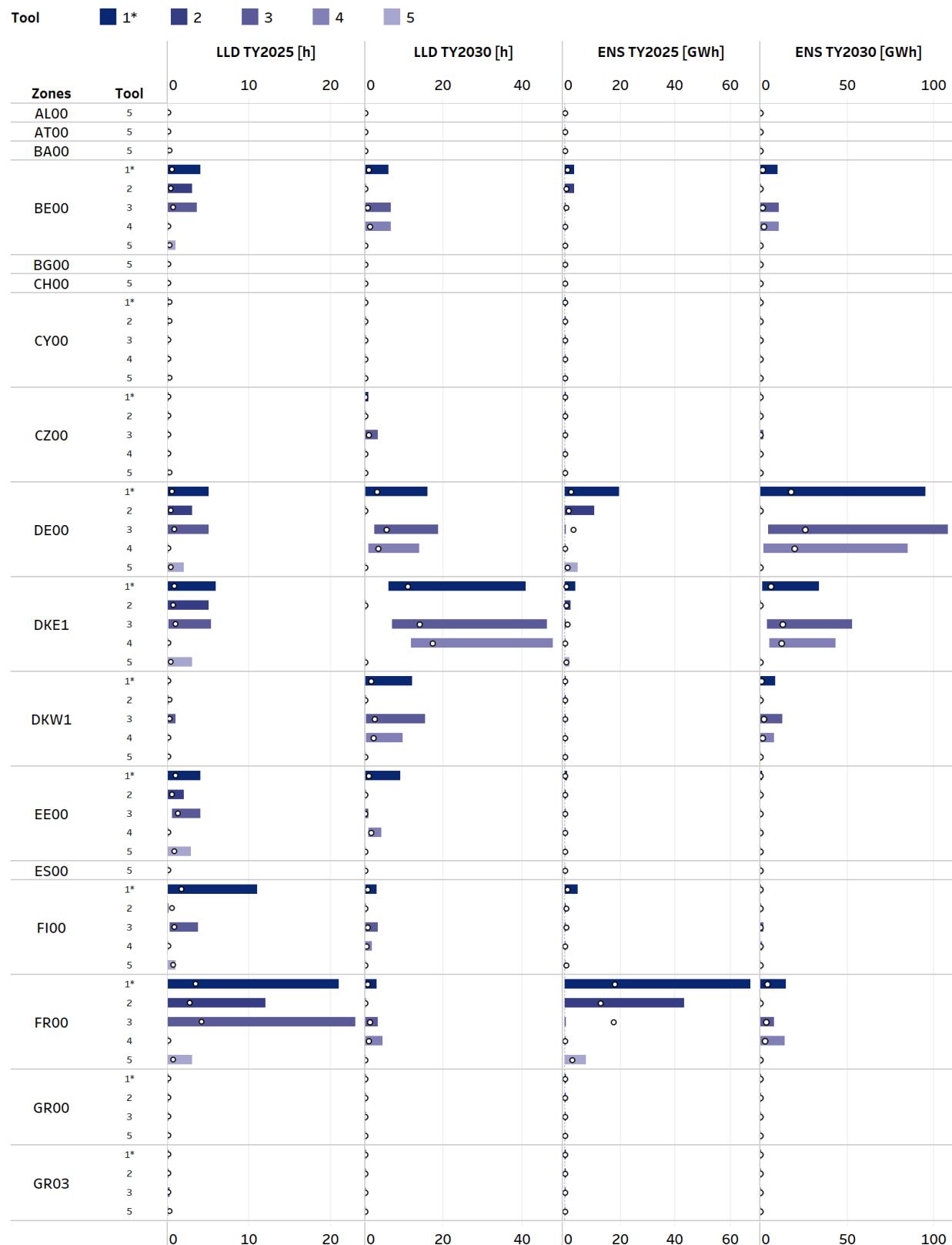


Figure 11: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 1)

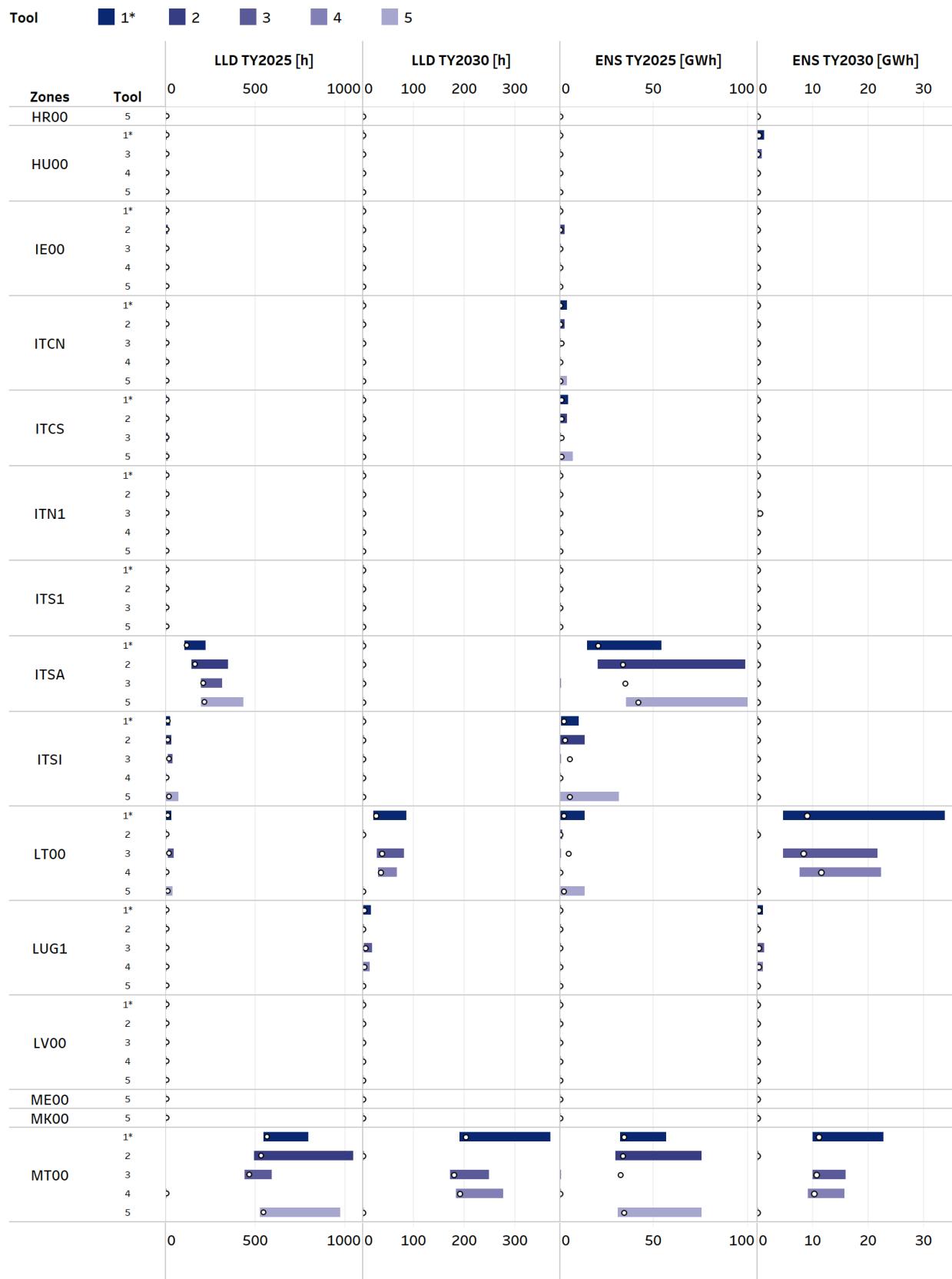


Figure 12: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 2)

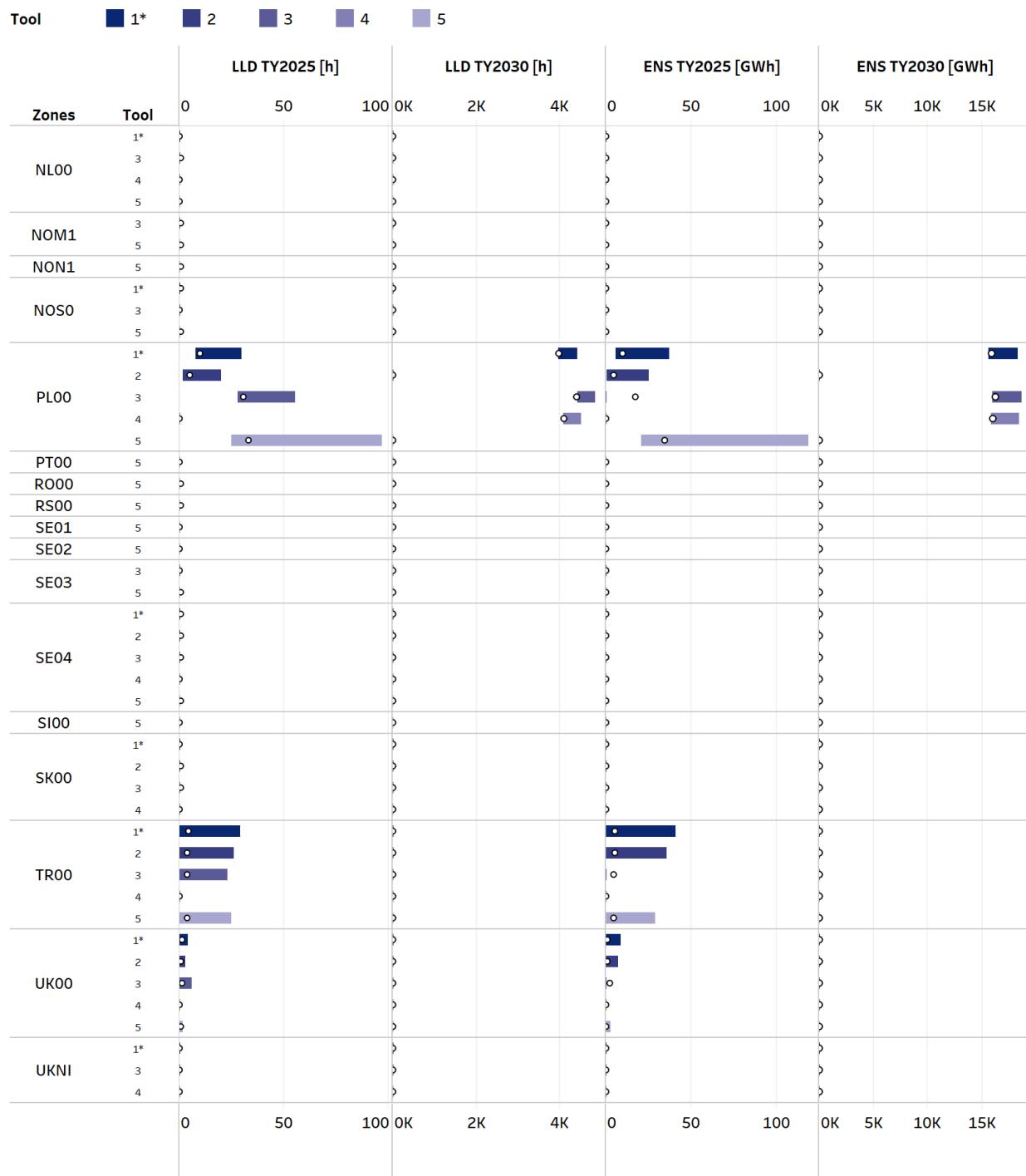


Figure 13: P50 LLD & ENS, P95 LLD& ENS, LOLE and EENS values by country and tool for TY 2025 and TY 2030 (Part 3)