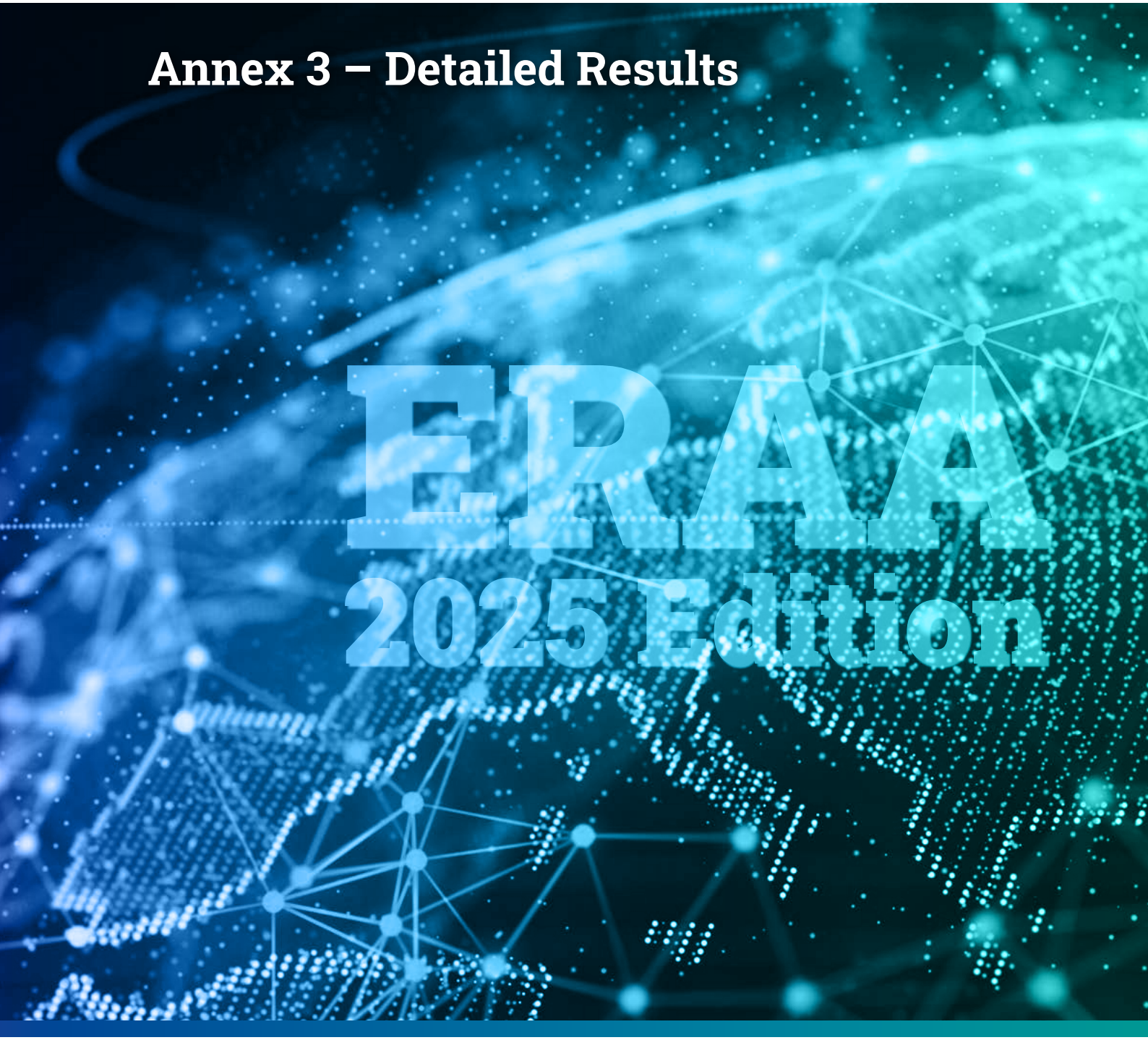
European Resource Adequacy Assessment

2025 Amended Edition following ACER's decision

Annex 3 – Detailed Results



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1 Introduction

This annex provides detailed tables and graphs to offer insights into the results. These results cannot be separated from the assumptions outlined in Annex 1 and the overall methodology followed in the European Resource Adequacy Assessment (ERAA) 2025 detailed in Annex 2. The presentation includes results from the single reference tool.

The analysis is based on risk aversion modelling approach with the enhanced hurdle premium., It provides insights into projections for new capacity entry, life extension, mothballing and early decommissioning. The second part focuses on adequacy results which are based on the analysis of loss of load expectation (LOLE) and expected energy not served (EENS) metrics.

The results of each adequacy simulation include the values of loss of load duration (LLD) and energy not served (ENS), which are aggregated in sets of LLDs and ENSs per study zone. LLDs are expressed as the number of hours within the simulation's time horizon when supply could not meet demand in a given study zone, while ENSs are expressed in GWh of unserved energy during the LLD hours. For each set of LLDs and ENSs, the mathematical expectation/average, the median/50th percentile and the 95th percentile value were derived. These values are defined as LOLE, EENS, P50 LLD, P50 ENS, P95 LLD, and P95 ENS, respectively.[1] For details on the calculation methodology and mathematical descriptions, refer to Annex 2.

The results for certain study zones are also available in aggregated form on the country level, as follows:

- Danish study zones DKE1 and DKW1 are aggregated in DK00;
- Irish study zones IE00 and UKNI are aggregated in I-SEM;
- Italian study zones ITCA, ITCN, ITCS, ITN1, ITS1, ITSA, and ITSI are aggregated in IT00;
- Norwegian study zones NOS1, NOS2, NOS3, NOM1, and NON1 are aggregated in NO00; and
- Swedish study zones SE01, SE02, SE03, and SE04 are aggregated in SE00.

For a geographical area with multiple study zones, ENS is calculated as the total ENS of all its zones. EENS is the mathematical average of the ENS calculated over the total number of Monte Carlo (MC) sample/simulation years. Similarly, for a geographical area with multiple nodes, LLD represents the number of hours when at least one node in the area experiences ENS during a single MC sample/simulation year, while LOLE is the mathematical average of the LLD across all MC sample/simulation years.

[1] For a set of 100 calculated values, the 95th percentile (often abbreviated as P95) represents the value that is greater than or equal to 95% and lower than or equal to 5% of all values contained in the set. The 50th percentile is calculated accordingly.

2 Central reference scenario Results

This chapter provides a comprehensive analysis of the central reference scenario for each target year (TY). EVA results are based on the national cost of new entry[2] (CONE) and harmonised values for gas candidate values across the study perimeter. The section is divided into two main parts: the first delves into the EVA results themselves, while the second addresses adequacy results related to reliability and system performance.

EVA results include new supply capacity entry, life extension, mothballing, and early decommissioning (Section 2.1.1). It is accompanied by an analysis of revenues for thermal expansion units (Section 2.1.2). Section 0 assesses system adequacy using LOLE and EENS metrics, while Section 2.2.1 evaluates the robustness of the adequacy results by examining whether the analyses converge to stable predictions across various weather scenarios (WSs). Section 2.2.2 highlights the main differences between ERAA 2024 and ERAA 2025.

Results should be interpreted under the given scenario and methodological framework. This implies that variations in the assumptions or modelling can impact the outcomes, which is especially relevant in adequacy assessment, given the non-linearity of adequacy issues. More specifically, additional sensitivities and scenarios can help to better explore and understand a broader spectrum of possible system development states in the future and, if necessary, to implement planning measures sufficiently in advance. In this context, complementarity between European and national resource adequacy assessments is particularly relevant.

2.1 EVA results

2.1.1 Detailed EVA results

Figure 1 and Table 1 present the capacity change per decision variable for each technology and TY and for the affected study zones. The values represent capacity differences with respect to the “National Trends” assumptions for each TY, i.e. if a capacity that has been deemed non-viable reaches its expected decommissioning date, it is excluded from the reported non-viable capacity starting from the TY of that date.[3] Detailed results per study zone are provided in Table 2.

[2] Refer to Annex 1 for a complete list of CONE values.
[3] For example, if a region indicates that Unit A (100 MW) is available until 2031, but EVA analysis shows that the unit is not viable in 2028 and 2030, then the net EVA effect will show:
2028: -100 MW
2030: -100 MW
2033: 0 MW
2035: 0 MW

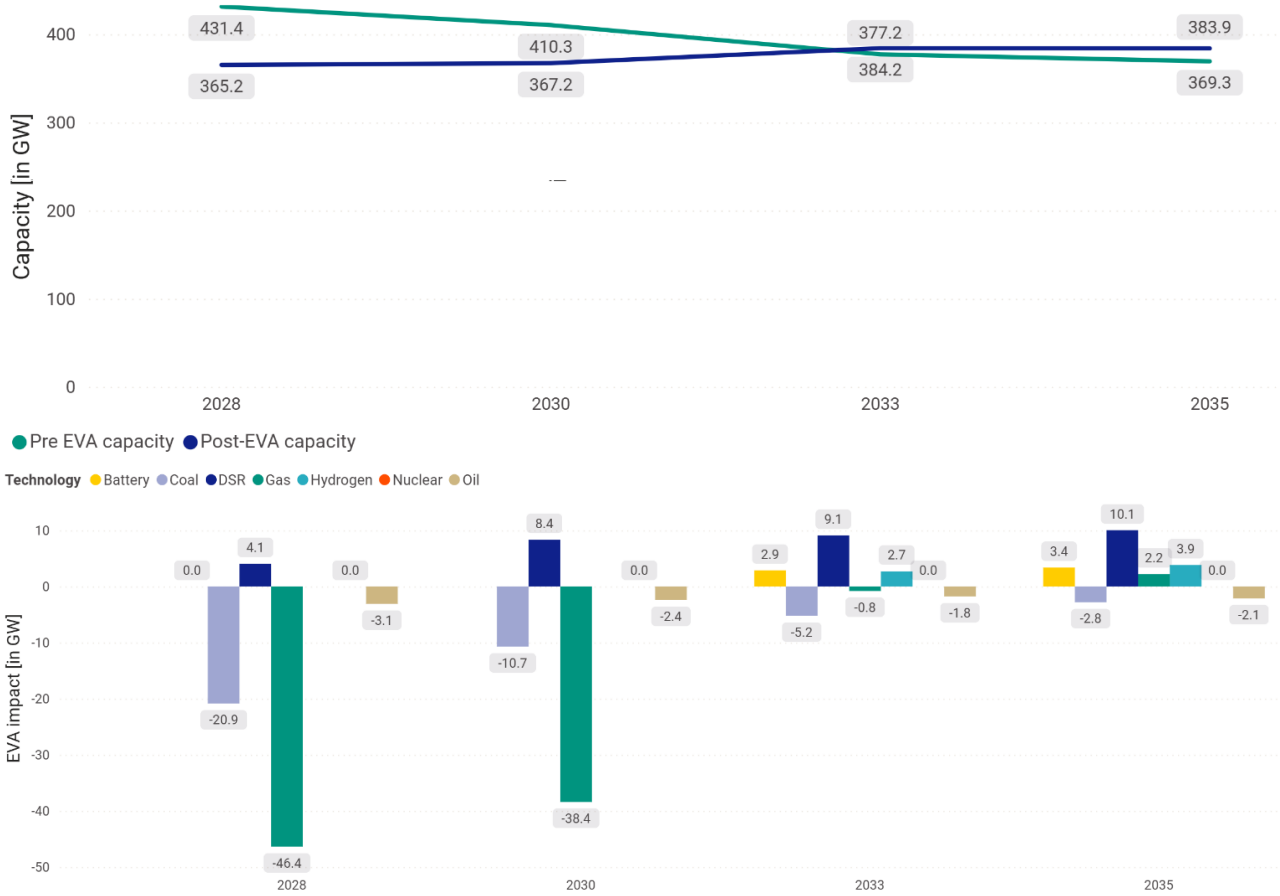

Figure 1: Net effect of the EVA on the European mix

The trend indicates a substantial decrease in capacity in Europe between 2028 and 2030.. The gross decommissioned capacity in these years exceeds given values, as some decommissioned capacities are offset by new entries or lifetime extensions in other study zones (cf. Table 1 and Table 2). Gross decommissioning will exceed 70 GW in 2028. By 2035, the expected retirement of thermal capacity is approximately 37 GW. Gas units are most exposed to decommissioning risks, accounting for over 66% of the total capacity decommissioned in 2028 and 86% in 2035, respectively, followed by lignite, hard coal, and oil units. Note that hard coal and lignite capacity is heavily subject to exogenous phase-out trajectories due to policy targets in many Member States, which are already reflected in the National Trends data and, as such, do not appear as additional capacity changes in the EVA results.

The EVA also indicates investments in demand-side response (DSR) across all TYs, and in batteries, gas, and hydrogen-fuelled units in 2033 and 2035. Investments in 2028 and 2030 are expected to reach approximately 4 GW and 9 GW, respectively, while over 35 GW of capacity is projected to be built in 2033, increasing to 44 GW in 2035. The growth in new entries by 2035 aligns with an assumed increase in demand throughout Europe. In 2035, 80% of the investments are composed of DSR and gas technologies, with DSR investments reaching more than 10 GW. In addition, life extensions are expected to add up to 7 GW in 2035, all of which are attributed to gas technologies across all TYs.

It should be noted that results should be read in light of the methodology and input data assumptions. Suggested hydrogen-fuelled generation expansion should not be interpreted as a definite signal of investment viability. Rather, it highlights the need to expand dispatchable thermal units, whose fuel supply could realistically be either gas or hydrogen, depending on future fuel cost developments across scenarios. Meanwhile, these findings are primarily driven by future assumptions, particularly assumed commodity prices (notably high CO_2 and gas blend costs), and investment costs, which remain highly uncertain for emerging technologies. The actual deployment of hydrogen-fuelled generation would largely depend on investors' expectations of future fuel prices and their risk aversion, which may be mitigated or exacerbated depending on the development of hydrogen policies at the European or national level. Important factors in the deployment of hydrogen-fired capacity are the availability of fuel supply and its distribution infrastructure. Both factors and associated costs are neglected in the EVA assessment.

Table 1: Capacity change proposed by the EVA compared to the National Trends scenario [GW] – non-cumulative

Decision variable	Technology	2028	2030	2033	2035	Affected study zones
New entry	**Battery**	0.00	0.00	2.90	3.40	ES00
	DSR	4.07	8.37	9.11	10.05	BG00, DE00, DKE1, DKW1, FI00, GR00, HR00, HU00, NL00, SE01, PT00, RO00, SE01, SE02, SE03, SE04, SI00, SK00
	Gas OCGT	0.00	0.76	20.83	26.98	DE00, DKE1, DKW1
	Hydrogen CCGT	0.00	0.00	2.73	3.85	CZ00, PL00
	Total	**4.07**	**9.13**	**35.57**	**44.28**	-
Life Extension	**Gas CCGT**	0.4	5.09	5.59	6.01	BE00, DE00, HU00, NL00
	Gas OCGT	0.00	0.27	0.46	1.06	DE00
	Total	**0.4**	**5.36**	**6.05**	**7.07**	
Decommissioning	**Gas CCGT**	-34.50	-40.30	-26.38	-30.66	AT00, BE00, BG00, FI00, FR00, GR00, HR00, HU00, IE00, ITCA, ITCN, ITCS, ITN1, ITS1, ITSI, MK00, NL00, PT00, RO00, SE04, UK00
	Gas OCGT	-12.26	-4.21	-1.28	-1.16	BG00, DE00, FI00, FR00, HR00, IE00, ITCS, ITS1, LT00, RO00, SE01, SE03, SI00, UK00
	Hard Coal	-4.19	-3.20	-0.69	-0.17	BG00, DE00, FI00, PL00
	Lignite	-16.66	-7.50	-4.53	-2.63	BA00, BG00, CZ00, DE00, GR00, HU00, IE00, ME00, PL00, RO00, SI00
	Oil	-3.08	-2.40	-1.76	-2.10	CY00, DE00, FR00, GR03, HR00, IE00, ITCS, SE03, UK00, UKNI
	Total	**-70.69**	**-57.61**	**-34.64**	**-36.72**	
Total		**-66.22**	**-43.12**	**6.98**	**14.63**	

Table 2: Capacity change proposed by EVA per study zone, PEMMDB technology, and decision variable compared to the National Trends scenario [MW] – non-cumulative

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
AT00	Gas CCGT	Retirement	-190	-190	0	0
	Gas OCGT	Retirement	0	0	0	0
	Total		**-190**	**-190**	**0**	**0**
BA00	Lignite	Retirement	-1490	-1500	-1500	-1510
	Total		**-1490**	**-1500**	**-1500**	**-1510**
BE00	Gas CCGT	Life Extension	400	2440	2690	2690
	Gas CCGT	Retirement	-580	0	0	0
	Gas OCGT	Retirement	0	0	0	0
	Heavy oil	Retirement	0	0	0	0
	Total		**-180**	**2440**	**2690**	**2690**
BG00	DSR	Expansion	0	0	60	100
	Gas CCGT	Retirement	0	-30	-50	-610
	Gas OCGT	Retirement	-60	0	0	0
	Hard coal	Retirement	-110	-110	-110	-140
	Lignite	Retirement	-1,980	-1,490	-1,320	-790
	Total		**-2150**	**-1630**	**-1420**	**-1440**
CY00	Gas OCGT	Retirement	0	0	0	0
	Heavy oil	Retirement	0	0	0	0
	Light oil	Retirement	-110	-110	0	0
	Total		**-110**	**-110**	**0**	**0**
CZ00	Gas CCGT	Retirement	0	0	0	0
	Gas OCGT	Retirement	0	0	0	0

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
	Hydrogen CCGT	Expansion	0	0	760	760
	Lignite	Retirement	-1,760	0	0	0
	Total		**-1,760**	**0**	**760**	**760**
DE00	**DSR**	Expansion	820	820	820	820
	Gas CCGT	Life Extension	0	0	160	180
	Gas CCGT	Retirement	0	0	0	0
	Gas OCGT	Expansion	0	130	17,050	23,140
	Gas OCGT	Life Extension	0	270	460	1,060
	Gas OCGT	Retirement	-330	-330	-320	0
	Hard coal	Retirement	-520	-520	0	0
	Heavy oil	Retirement	-290	0	0	0
	Lignite	Retirement	-5,900	0	0	0
	Total		**-6,220**	**370**	**18,170**	**25,200**
DKE1	**DSR**	Expansion	0	60	60	60
	Gas OCGT	Expansion	0	630	2,250	2,300
	Total		**0**	**690**	**2,310**	**2,360**
DKW1	**DSR**	Expansion	0	220	220	230
	Gas OCGT	Expansion	0	0	1,530	1,540
	Total		**0**	**220**	**1,750**	**1,770**
ES00	**Battery**	Expansion	0	0	2,900	3,400
	Gas CCGT	Retirement	-20	0	0	0
	Total		**-20**	**0**	**2,900**	**3,400**

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
FI00	DSR	Expansion	2,000	2,000	2,000	2,000
	Gas CCGT	Retirement	-70	0	0	0
	Gas OCGT	Retirement	-40	0	0	0
	Hard coal	Retirement	-560	-530	-300	-30
	Total		**1,330**	**1,470**	**1,700**	**1,970**
FR00	Gas CCGT	Retirement	-70	-70	-70	-3,780
	Gas OCGT	Retirement	-400	-400	-450	-550
	Light oil	Retirement	-1,310	-1,310	-1,310	-1,330
	Total		**-1,780**	**-1,780**	**-1,830**	**-5,660**
GR00	DSR	Expansion	30	30	30	30
	Gas CCGT	Retirement	-3,580	-4,110	-4,110	-3,460
	Gas OCGT	Retirement	0	0	0	0
	Lignite	Retirement	-590	0	0	0
	Total		**-4,140**	**-4,080**	**-4,080**	**-3,430**
GR03	Light oil	Retirement	-140	-140	-130	-130
	Total		**-140**	**-140**	**-130**	**-130**
HR00	DSR	Expansion	0	0	0	30
	Gas CCGT	Retirement	-50	-50	-30	0
	Gas OCGT	Retirement	-610	-620	0	0
	Hard coal	Retirement	-280	-280	-280	0
	Heavy oil	Retirement	-290	-290	0	0
	Total		**-1,230**	**-1,240**	**-310**	**30**

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
HU00	DSR	Expansion	0	30	40	40
	Gas CCGT	Life Extension	0	50	140	540
	Gas CCGT	Retirement	-130	-130	-290	0
	Gas OCGT	Retirement	0	0	0	0
	Hard coal	Retirement	0	0	0	0
	Light oil	Retirement	0	0	0	0
	Lignite	Retirement	-170	0	0	0
	Total		**-300**	**-50**	**-110**	**580**
IE00	Gas CCGT	Retirement	0	-80	-80	-80
	Gas OCGT	Retirement	0	0	0	-110
	Light oil	Retirement	0	-140	-140	-140
	Lignite	Retirement	0	0	0	-110
	Total		**0**	**-220**	**-220**	**-440**
ITCA	Gas CCGT	Retirement	-580	-580	-680	-780
	Gas OCGT	Retirement	0	0	0	0
	Total		**-580**	**-580**	**-680**	**-780**
ITCN	Gas CCGT	Retirement	-150	-230	-250	-250
	Gas OCGT	Retirement	0	0	0	0
	Light oil	Retirement	0	0	0	0
	Total		**-150**	**-230**	**-250**	**-250**
ITCS	Gas CCGT	Retirement	-4,790	-4,800	-4,800	-4,840
	Gas OCGT	Retirement	-80	-90	-90	-110

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
	Light oil	Retirement	-40	-40	-40	-70
	Total		**-4,910**	**-4,930**	**-4,930**	**-5,020**
ITN1	**Gas CCGT**	Retirement	-8,070	-8,070	-8,070	-8,090
	Gas OCGT	Retirement	0	0	0	0
	Total		**-8,070**	**-8,070**	**-8,070**	**-8,090**
ITS1	**Gas CCGT**	Retirement	-2,330	-2,870	-2,870	-2,890
	Gas OCGT	Retirement	-240	-260	-280	-340
	Total		**-2,570**	**-3,130**	**-3,150**	**-3,230**
ITSA	**Hard coal**	Retirement	0	0	0	0
	Light oil	Retirement	0	0	0	0
	Total		**0**	**0**	**0**	**0**
ITSI	**Gas CCGT**	Retirement	-580	-1,470	-1,520	-1,960
	Gas OCGT	Retirement	0	0	0	0
	Total		**-580**	**-1,470**	**-1,520**	**-1,960**
LT00	**Gas CCGT**	Retirement	0	0	0	0
	Gas OCGT	Life Extension	0	0	0	0
	Gas OCGT	Retirement	-80	0	0	0
	Total		**-80**	**0**	**0**	**0**
LV00	**Gas CCGT**	Retirement	0	0	0	0
	Total		**0**	**0**	**0**	**0**
ME00	**Lignite**	Retirement	-210	-220	-220	-220
	Total		**-210**	**-220**	**-220**	**-220**

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
MK00	Gas CCGT	Retirement	0	0	0	-590
	Gas OCGT	Retirement	0	0	0	0
	Total		0	0	0	-590
MT00	Gas CCGT	Retirement	0	0	0	0
	Total		0	0	0	0
NL00	DSR	Expansion	520	1,050	1,130	1,170
	Gas CCGT	Life Extension	0	2,600	2,600	2,600
	Gas CCGT	Retirement	-1,680	-30	-30	0
	Gas OCGT	Retirement	0	0	0	0
	Total		-1,160	3,620	3,700	3,770
NOS2	Gas OCGT	Retirement	0	0	0	0
	Total		0	0	0	0
NOS3	Gas OCGT	Retirement	0	0	0	0
	Total		0	0	0	0
PL00	Gas CCGT	Retirement	0	0	0	0
	Hard coal	Retirement	-2,720	-1,760	0	0
	Hydrogen CCGT	Expansion	0	0	1,970	3,090
	Lignite	Retirement	-2,940	-2,940	-990	0
	Total		-5,660	-4,700	980	3,090
PT00	DSR	Expansion	0	440	510	730
	Gas CCGT	Retirement	-1,770	-1,770	-770	0
	Total		-1,770	-1,330	-260	730

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
RO00	DSR	Expansion	0	0	30	110
	Gas CCGT	Retirement	-1,860	-2,130	- 2,590	-3,330
	Gas OCGT	Retirement	0	-30	-30	-30
	Lignite	Retirement	-850	-850	0	0
	Total		**-2,710**	**-3,010**	**-2,590**	**-3,250**
SE01	DSR	Expansion	150	150	300	790
	Gas OCGT	Retirement	-80	0	0	0
	Total		**70**	**150**	**300**	**790**
SE02	DSR	Expansion	50	160	460	460
	Total		**50**	**160**	**460**	**460**
SE03	DSR	Expansion	360	2,610	2,620	2,620
	Gas CCGT	Retirement	0	0	0	0
	Gas OCGT	Retirement	-20	-20	0	0
	Light oil	Retirement	-130	0	0	0
	Total		**210**	**2,590**	**2,620**	**2,620**
SE04	DSR	Expansion	70	610	610	610
	Gas CCGT	Retirement	-420	0	0	0
	Total		**-350**	**610**	**610**	**610**
SI00	DSR	Expansion	40	40	40	40
	Gas OCGT	Retirement	-50	-50	-80	0
	Lignite	Retirement	-770	-500	-500	0
	Total		**-780**	**-510**	**-540**	**40**

Study Zone	PEMMDB Technology	Decision Variable	2028	2030	2033	2035
SK00	DSR	Expansion	30	150	180	210
	Total		30	150	180	210
UK00	Gas CCGT	Retirement	-7,580	-13,690	-170	0
	Gas OCGT	Retirement	-10,270	-2,410	-30	-20
	Heavy oil	Retirement	-690	-230	0	-80
	Total		-18,540	-16,330	-200	-100
UKNI	Gas OCGT	Retirement	0	0	0	0
	Light oil	Retirement	-80	-140	-140	-350
	Lignite	Retirement	0	0	0	0
	Total		-80	-140	-140	-350
Grand Total			-66,220	-43,120	6,980	14,630

2.1.2 Revenue analysis for thermal expansion units

This section assesses how new thermal investments in EVA depend on revenues earned during near-scarcity conditions. Because real-world decisions may not hinge solely on peak prices, it is important to track actual investment announcements and commissioning activity.

Figure 2 show the percentage of revenues the new gas/hydrogen capacity receives during near-scarcity hours (dots), the installed capacity in MW on the specified TY, and the average capacity factor[4] (bars) over the researched horizon. As the new thermal capacity enters the market in 2030, 2033, and 2035, results include these TYs, based on the specific entry date in each study zone. Near-scarcity hours are defined as hours where the price of electricity exceeds arbitrarily defined thresholds (500, 1,000 and 2,000 €/MWh). It follows that scarcity hours (hours with prices at the market price cap) are included in the count of near-scarcity hours.

Figure 2 highlights that weather conditions under WS 23 result in a significant number of near-scarcity events with high prices. This is due to WS23 featuring more adverse weather conditions than the two other selected representative WSs , which push the electricity system to its limits.[5] This is reflected by scarcity-driven revenues reaching high levels for combined cycle gas turbine

[4] Capacity factor = yearly generation [GWh] / (NGC [GW] x 8,760 h)
[5] For detailed information on the weather scenarios used in ERAA 2025 please see Annex 1, Section 3

(CCGT) investments in the modelling. In contrast, this is not the case under WS 27 and WS 35. Overall, the results indicate that these units do not rely on extreme prices. Rather, expansion decisions appear to be mostly driven by the adverse WS 23.

The characteristics of combined CCGT and hydrogen/open cycle gas turbines (OCGT) are also evident in the same figure. New hydrogen/CCGT units exhibit a higher capacity factor and lower reliance on scarcity revenues, while OCGT units show the opposite. This outcome is intuitive, given the higher marginal cost of OCGT units compared to hydrogen/CCGT units (despite slightly lower investment costs), making them peaking assets — available during occasional high-demand hours (low frequency, high revenue). By contrast, hydrogen/CCGT units, with lower marginal cost, are better suited for investments expecting more frequent dispatch.

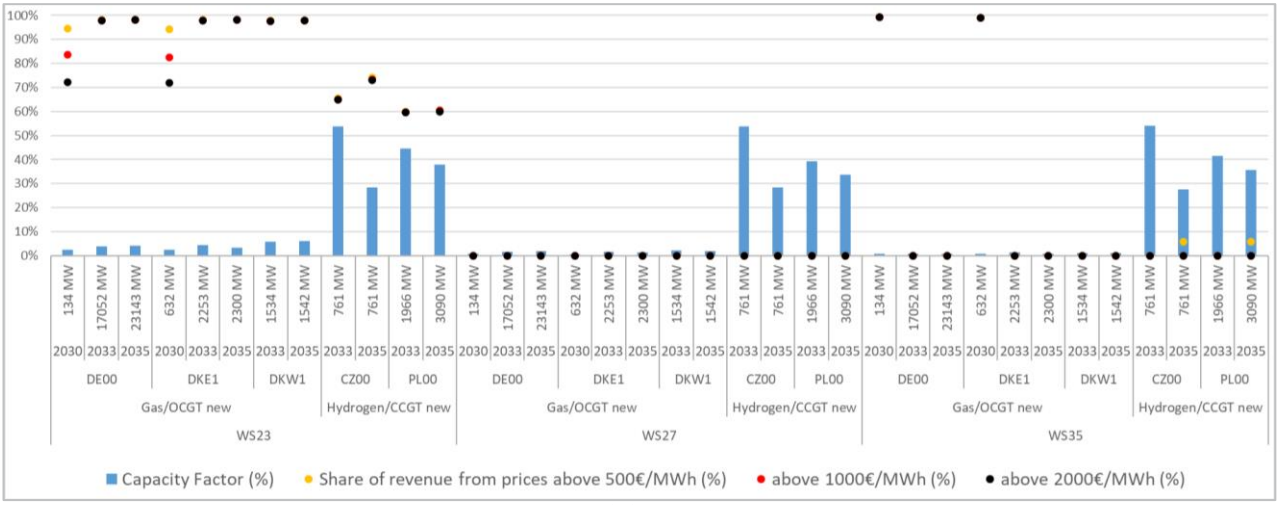

Figure 2: Scarcity revenues and average capacity factor (%) for new thermal capacity in the central reference scenario with risk aversion with the enhanced hurdle premium only (WSs 23, 25, and 35)

In the central reference scenario with risk aversion with the enhanced hurdle premium only, most revenues from new CCGT units rely heavily on WS 23 near-scarcity events. An exception is capacity built in 2030 for Germany (DE00) and Denmark (DKE1), where dependence is relatively less extreme under WS 23: about 72% of revenues come from hours with prices exceeding 2,000 €/MWh, around 84% from >1,000 €/MWh, and about 95% from >500 €/MWh. For other target years, WS 23 concentrates revenues almost entirely in >2,000 €/MWh hours (≈97%). At the same time, WS 35 also contributes: in 2030 for DE00 and DKE1, revenues are even more concentrated in very high-price hours, with >99% earned when prices exceed 2,000 €/MWh.

For hydrogen CCGT, the pattern broadly repeats, with a strong reliance on WS23. However, WS 35 still adds a modest contribution in 2035 for CZ and PL, with roughly 6% of revenues earned at prices >500 €/MWh.

This shows that expansion outcomes are highly sensitive to WS 23's scarcity situations, but not exclusively so: in some target years, WS 35 also shapes the revenue mix.

2.2 Adequacy results

The following sections provide insights into the detailed results per study zone, in addition to the model of the convergence quantifications.

Later in this section, detailed EENS and LOLE results, including the 50th and 95th percentiles, are presented for each study zone (as well as aggregates at the country level). The 95th percentile occurrences can be interpreted as a "one-time-in-20 years" occurrence, covering events with a lower likelihood but a higher impact on adequacy. The results account for both without and with

the activation of already approved out-of-market (OOM) resources[6] (see Section 4.1 in Annex 1). Meanwhile, hourly results are published alongside the ERAA report.[7]

The 2028 results are presented below. There are respective tables listing the LOLE and LLD percentiles for each study zone and the same information aggregated for countries with multiple study zones. EENS results are presented further down.

Table 3: Study zone LOLE (average) and LLD percentiles for TY 2028

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
AL00	0.00	0.00	0.00
AT00	3.05	0.00	28.10
BA00	4.29	0.00	46.05
BE00	8.87	0.00	70.05
BG00	8.68	1.50	65.05
CH00	0.00	0.00	0.00
CY00	0.16	0.00	0.00
CZ00	12.97	1.00	71.00
DE00	14.30	2.50	73.05
DKE1	14.63	4.00	74.00
DKW1	12.98	0.00	63.15
EE00	24.11	14.00	85.00
ES00	6.35	3.00	35.05
FI00	1.27	0.00	9.05
FR00	6.56	0.00	60.00
GR00	4.32	0.00	43.05
GR03	8.35	1.00	62.05
HR00	0.00	0.00	0.00
HU00	9.53	1.00	71.10
IE00	1.61	0.00	13.00
ITCA	0.00	0.00	0.00
ITCN	11.86	5.00	68.05
ITCS	14.10	8.00	66.05
ITN1	6.97	0.00	55.05
ITS1	9.49	6.00	30.05
ITSA	5.11	1.00	33.00
ITSI	10.38	6.00	47.00
LT00	14.54	0.00	67.00
LUG1	14.30	2.50	73.05
LV00	0.03	0.00	0.00
MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00

[6] The ERAA accounts for CMs that already hold a CM contract granted in any previous auction of any existing or approved CM at the time of the assessment, including strategic reserves. For Poland, this DSR is coming from CM and is relevant for 2026 and 2028.

[7] ERAA 2024 page: download section

MK00	1.01	0.00	6.00
MT00	12.56/1.76	6.00/0.00	57.10/11.05
NL00	9.01	0.00	52.05
NOM1	0.98	0.00	7.00
NON1	0.01	0.00	0.00
NOS1	3.96	0.00	19.00
NOS2	0.00	0.00	0.00
NOS3	0.03	0.00	0.00
PL00	11.73/8.85	0/0	48/44
PT00	0.82	0.00	4.05
RO00	7.59	1.00	49.05
RS00	2.49	0.00	32.05
SE01	0.02	0.00	0.00
SE02	0.00	0.00	0.00
SE03	1.40	0.00	8.05
SE04	6.50	0.00	36.05
SI00	5.21	0.00	56.00
SK00	4.42	0.00	30.00
UKNI	0.61	0.00	5.00

Table 4: Country LOLE (average) and LLD percentiles for TY 2028

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
DK00	14.80	4.00	74.05
ISEM	2.04	0.00	15.00
IT00	16.05	9.00	70.00
LU00	14.30	2.50	73.05
NO00	4.03	0.00	19.05
SE00	6.51	0.00	36.05

Table 5 lists the average EENS and ENS percentiles for each study zone, and Table 6 presents the countrywide average EENS and ENS percentiles for countries with multiple study zones.

Table 5: Study zone EENS (average) and ENS percentiles for TY 2028

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
AL00	0.00	0.00	0.00
AT00	0.68	0.00	7.26
BA00	2.75	0.00	26.94
BE00	9.73	0.00	99.64
BG00	2.32	0.05	24.28
CH00	0.00	0.00	0.00
CY00	0.01	0.00	0.00
CZ00	7.91	0.03	50.01
DE00	62.13	0.32	457.51
DKE1	4.79	0.17	34.31

DKW1	5.65	0.00	32.82
EE00	4.06	0.95	18.42
ES00	9.87	0.94	68.38
FI00	0.59	0.00	2.59
FR00	20.93	0.00	204.56
GR00	1.15	0.00	10.54
GR03	0.66	0.02	6.24
HR00	0.00	0.00	0.00
HU00	5.90	0.05	67.12
IE00	0.23	0.00	1.52
ITCA	0.00	0.00	0.00
ITCN	4.68	0.52	48.67
ITCS	7.47	1.75	69.83
ITN1	7.68	0.00	74.36
ITS1	1.38	0.31	4.61
ITSA	0.24	0.01	1.22
ITSI	1.21	0.20	8.98
LT00	2.56	0.00	15.65
LUG1	0.88	0.00	6.48
LV00	0.00	0.00	0.00
MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.10	0.00	0.23
MT00	1.06/0.07	0.23/0.00	5.72/0.44
NL00	6.05	0.00	58.95
NOM1	0.10	0.00	0.44
NON1	0.00	0.00	0.00
NOS1	1.06	0.00	7.47
NOS2	0.00	0.00	0.00
NOS3	0.00	0.00	0.00
PL00	14.14/10.66	0/0	67.65/55.88
PT00	0.14	0.00	0.64
RO00	2.93	0.03	24.41
RS00	2.68	0.00	36.77
SE01	0.00	0.00	0.00
SE02	0.00	0.00	0.00
SE03	0.29	0.00	1.52
SE04	2.34	0.00	12.75
SI00	0.82	0.00	8.31
SK00	0.27	0.00	1.93
UKNI	0.04	0.00	0.22

Table 6: Country EENS (average) and ENS percentiles for TY 2028

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
DK00	10.44	0.33	67.94
ISEM	0.27	0.00	1.61
IT00	22.67	4.16	229.97
LU00	0.88	0.00	6.48
NO00	1.16	0.00	8.18
SE00	2.64	0.00	13.74

For TY 2030, Table 7 lists the average LOLE and LLD percentiles for each study zone, and Table 8 presents the countrywide average LOLE and LLD percentiles for countries with multiple study zones.

Table 7: Study zone LOLE (average) and LLD percentiles for TY 2030

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
AL00	0.00	0.00	0.00
AT00	1.63	0.00	13.10
BA00	1.93	0.00	23.05
BE00	9.35	0.00	58.00
BG00	2.31	0.00	27.05
CH00	0.00	0.00	0.00
CY00	0.30	0.00	3.00
CZ00	18.46	6.00	63.05
DE00	19.64	7.00	65.00
DKE1	19.38	7.00	62.05
DKW1	19.17	6.00	64.00
EE00	13.12	0.00	56.05
ES00	11.09	5.00	60.00
FI00	1.56	0.00	14.00
FR00	6.54	0.00	47.05
GR00	2.13	0.00	32.00
GR03	3.26	0.00	35.15
HR00	0.01	0.00	0.00
HU00	5.08	0.00	45.15
IE00	2.05	0.00	17.00
ITCA	0.00	0.00	0.00
ITCN	5.41	0.00	48.10
ITCS	3.25	0.00	40.10
ITN1	5.57	0.00	46.05
ITS1	1.01	0.00	6.05
ITSA	0.71	0.00	4.00
ITSI	1.96	0.00	25.15
LT00	15.93	0.00	60.00
LUG1	19.64	7.00	65.00
LV00	0.09	0.00	1.00

MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.00	0.00	0.00
MT00	0.92/0.01	0.00	5.00/0.00
NL00	12.04	0.00	52.05
NOM1	2.82	0.00	16.00
NON1	0.03	0.00	0.00
NOS1	5.88	0.00	28.00
NOS2	0.44	0.00	2.00
NOS3	0.08	0.00	0.00
PL00	14.38	0	57
PT00	0.00	0.00	0.00
RO00	1.37	0.00	12.05
RS00	0.41	0.00	0.00
SE01	0.19	0.00	1.00
SE02	0.00	0.00	0.00
SE03	3.12	0.00	16.00
SE04	7.81	0.00	36.05
SI00	2.98	0.00	34.05
SK00	2.95	0.00	16.05
UKNI	1.06	0.00	7.00

Table 8: Country LOLE (average) and LLD percentiles for TY 2030

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
DK00	20.13	7.00	65.05
ISEM	2.66	0.00	19.00
IT00	6.35	0.00	48.15
LU00	19.64	7.00	65.00
NO00	5.98	0.00	28.00
SE00	7.90	0.00	36.05

For TY 2030, Table 9 lists the average EENS and ENS percentiles for each study zone, and Table 10 presents the countrywide average EENS and ENS percentiles for countries with multiple study zones.

Table 9: Study zone EENS (average) and ENS percentiles for TY 2030

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
AL00	0.00	0.00	0.00
AT00	0.28	0.00	2.34
BA00	1.22	0.00	8.89
BE00	5.25	0.00	48.32
BG00	0.54	0.00	5.62
CH00	0.00	0.00	0.00
CY00	0.01	0.00	0.04
CZ00	16.30	1.21	76.58

DE00	88.02	4.56	467.70
DKE1	4.24	0.72	18.42
DKW1	9.82	0.61	42.02
EE00	1.91	0.00	9.72
ES00	22.67	4.69	148.17
FI00	0.61	0.00	3.78
FR00	21.56	0.00	166.35
GR00	0.75	0.00	8.29
GR03	0.32	0.00	3.08
HR00	0.00	0.00	0.00
HU00	2.71	0.00	29.92
IE00	0.28	0.00	1.78
ITCA	0.00	0.00	0.00
ITCN	2.71	0.00	30.50
ITCS	2.56	0.00	33.20
ITN1	9.40	0.00	117.79
ITS1	0.25	0.00	0.53
ITSA	0.03	0.00	0.16
ITSI	0.41	0.00	4.61
LT00	4.54	0.00	25.17
LUG1	1.20	0.06	6.38
LV00	0.00	0.00	0.00
MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.00	0.00	0.00
MT00	0.04	0.00	0.14/0.00
NL00	8.85	0.00	79.92
NOM1	0.45	0.00	3.17
NON1	0.00	0.00	0.00
NOS1	1.60	0.00	8.44
NOS2	0.02	0.00	0.03
NOS3	0.00	0.00	0.00
PL00	22.54	0	130.45
PT00	0.00	0.00	0.00
RO00	0.30	0.00	1.63
RS00	0.25	0.00	0.00
SE01	0.00	0.00	0.00
SE02	0.00	0.00	0.00
SE03	0.62	0.00	4.15
SE04	2.51	0.00	12.46
SI00	0.49	0.00	5.58
SK00	0.21	0.00	1.38
UKNI	0.07	0.00	0.48

Table 10: Country EENS (average) and ENS percentiles for TY 2030

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
DK00	14.07	1.44	61.62
ISEM	0.35	0.00	2.31
IT00	15.35	0.00	189.59
LU00	1.20	0.06	6.38
NO00	2.07	0.00	10.19
SE00	3.14	0.00	16.22

For TY 2033, Table 11 lists the average LOLE and LLD percentiles for each study zone, and Table 12 presents the countrywide average LOLE and LLD percentiles for countries with multiple study zones.

Table 11: Study zone LOLE (average) and LLD percentiles for TY 2033

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
AL00	0.00	0.00	0.00
AT00	4.09	0.00	28.05
BA00	1.23	0.00	16.05
BE00	12.64	0.00	85.05
BG00	1.64	0.00	23.05
CH00	0.00	0.00	0.00
CY00	11.50	6.00	42.00
CZ00	15.18	0.00	61.05
DE00	19.85	0.00	89.00
DKE1	7.02	0.00	29.05
DKW1	19.83	0.00	88.10
EE00	43.68	31.00	136.00
ES00	6.37	0.00	32.00
FI00	8.82	0.00	46.05
FR00	6.40	0.00	60.00
GR00	1.79	0.00	26.00
GR03	8.98	4.00	39.00
HR00	0.01	0.00	0.00
HU00	3.08	0.00	33.00
IE00	2.99	0.00	24.10
ITCA	0.00	0.00	0.00
ITCN	4.29	0.00	45.00
ITCS	2.96	0.00	43.00
ITN1	6.20	0.00	53.05*
ITS1	0.87	0.00	5.05
ITSA	0.44	0.00	4.00
ITSI	1.38	0.00	17.00
LT00	38.58	25.50	126.10
LUG1	19.85	0.00	89.00
LV00	2.80	0.00	14.00

MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.06	0.00	0.00
MT00	0.76/0.03	0.00	5.00/0.00
NL00	15.39	0.00	88.10
NOM1	6.45	0.00	30.00
NON1	0.44	0.00	3.00
NOS1	10.60	0.00	54.00
NOS2	0.89	0.00	4.00
NOS3	0.00	0.00	0.00
PL00	12.18	0.00	56.00
PT00	0.02	0.00	0.00
RO00	0.97	0.00	10.00
RS00	0.02	0.00	0.00
SE01	0.35	0.00	2.00
SE02	0.00	0.00	0.00
SE03	8.54	0.00	36.00
SE04	10.03	0.00	41.05
SI00	2.19	0.00	26.00
SK00	6.11	0.00	35.05
UKNI	1.15	0.00	8.00

Table 12: Country LOLE (average) and LLD percentiles for TY 2033 [without OOM resource/with OOM resource]

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
DK00	19.97	0.00	89.05
ISEM	3.48	0.00	26.00
IT00	6.75	0.00	54.15
LU00	19.85	0.00	89.00
NO00	10.64	0.00	54.00
SE00	10.31	0.00	42.00

For TY 2033, Table 13 lists the average EENS and ENS percentiles for each study zone, and Table 14 presents the countrywide average EENS and ENS percentiles for countries with multiple study zones.

Table 13: Study zone EENS (average) and ENS percentiles for TY 2033 [without OOM resource/with OOM resource]

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
AL00	0.00	0.00	0.00
AT00	1.67	0.00	10.05
BA00	0.53	0.00	6.43
BE00	10.99	0.00	97.29
BG00	0.37	0.00	4.13
CH00	0.00	0.00	0.00
CY00	0.50	0.18	1.94
CZ00	11.83	0.00	69.30

DE00	93.94	0.00	564.57
DKE1	0.46	0.00	2.27
DKW1	13.38	0.00	73.21
EE00	6.98	3.22	24.72
ES00	11.21	0.00	45.69
FI00	3.52	0.00	21.69
FR00	20.34	0.00	199.03
GR00	0.59	0.00	6.82
GR03	0.58	0.02	2.81
HR00	0.00	0.00	0.00
HU00	0.98	0.00	7.10
IE00	0.45	0.00	3.91
ITCA	0.00	0.00	0.00
ITCN	2.45	0.00	29.30
ITCS	2.56	0.00	32.19
ITN1	10.62	0.00	132.23
ITS1	0.26	0.00	0.48
ITSA	0.02	0.00	0.10
ITSI	0.27	0.00	2.17
LT00	12.12	4.03	49.02
LUG1	1.21	0.00	7.27
LV00	0.08	0.00	0.41
MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.01	0.00	0.00
MT00	0.04	0.00	0.11/0.00
NL00	19.72	0.00	169.71
NOM1	1.51	0.00	8.76
NON1	0.00	0.00	0.00
NOS1	3.75	0.00	21.77
NOS2	0.09	0.00	0.24
NOS3	0.00	0.00	0.00
PL00	21.47	0.00	154.00
PT00	0.00	0.00	0.00
RO00	0.26	0.00	1.55
RS00	0.00	0.00	0.00
SE01	0.01	0.00	0.02
SE02	0.00	0.00	0.00
SE03	4.09	0.00	22.29
SE04	3.71	0.00	17.70
SI00	0.47	0.00	5.66
SK00	0.85	0.00	6.17
UKNI	0.09	0.00	0.51

Table 14: Country EENS (average) and ENS percentiles for TY 2033

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
DK00	13.84	0.00	74.19
ISEM	0.53	0.00	3.92
IT00	16.18	0.00	205.90
LU00	1.21	0.00	7.27
NO00	5.34	0.00	27.38
SE00	7.81	0.00	39.08

For TY 2035, Table 15 lists the average LOLE and LLD percentiles for each study zone, and Table 16 presents the countrywide average LOLE and LLD percentiles for countries with multiple study zones.

Table 15: Study zone LOLE (average) and LLD percentiles for TY 2035

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
AL00	0.00	0.00	0.00
AT00	4.18	0.00	38.00
BA00	1.43	0.00	21.00
BE00	11.83	0.00	92.05
BG00	0.54	0.00	5.00
CH00	0.00	0.00	0.00
CY00	21.64	14.50	68.00
CZ00	21.42	0.00	79.00
DE00	24.00	0.00	125.10
DKE1	16.50	0.00	80.25
DKW1	23.14	0.00	123.05
EE00	14.68	0.00	68.00
ES00	9.06	3.00	45.00
FI00	2.76	0.00	28.05
FR00	6.29	0.00	67.00
GR00	2.39	0.00	36.10
GR03	14.32	6.00	56.05
HR00	0.01	0.00	0.00
HU00	3.28	0.00	35.05
IE00	3.52	0.00	32.00
ITCA	0.00	0.00	0.00
ITCN	4.69	0.00	61.05
ITCS	4.35	0.00	59.05
ITN1	4.70	0.00	58.10
ITS1	1.08	0.00	6.00
ITSA	0.65	0.00	4.00
ITSI	2.25	0.00	29.05
LT00	19.54	0.00	75.00
LUG1	24.00	0.00	125.10
LV00	2.47	0.00	14.00

MD00	0.01	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.76	0.00	7.00
MT00	1.71/0.04	0.00	8.05/0.00
NL00	17.87	0.00	109.10
NOM1	2.41	0.00	18.10
NON1	0.15	0.00	1.00
NOS1	2.30	0.00	16.00
NOS2	0.00	0.00	0.00
NOS3	0.01	0.00	0.00
PL00	21.76	0.00	67.05
PT00	0.06	0.00	0.00
RO00	0.20	0.00	1.00
RS00	0.06	0.00	0.00
SE01	0.26	0.00	2.00
SE02	0.00	0.00	0.00
SE03	4.40	0.00	23.05
SE04	6.61	0.00	37.00
SI00	2.70	0.00	40.05
SK00	9.26	0.00	42.00
UKNI	2.95	0.00	20.00

Table 16: Country LOLE (average) and LLD percentiles for TY 2035

Study zone	Average [h/year]	P50 [h/year]	P95 [h/year]
DK00	23.76	0.00	123.05
ISEM	4.43	0.00	33.10
IT00	5.13	0.00	63.05
LU00	24.00	0.00	125.10
NO00	2.91	0.00	20.05
SE00	6.86	0.00	37.00

For TY 2035, Table 17 lists the average EENS and ENS percentiles for each study zone, and Table 18 presents the countrywide average EENS and ENS percentiles for countries with multiple study zones.

Table 17: Study zone EENS (average) and ENS percentiles for TY 2035

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
AL00	0.00	0.00	0.00
AT00	1.32	0.00	14.11
BA00	0.77	0.00	8.43
BE00	10.27	0.00	108.70
BG00	0.06	0.00	0.21
CH00	0.00	0.00	0.00
CY00	1.09	0.54	3.97
CZ00	16.78	0.00	74.12

DE00	130.72	0.00	688.57
DKE1	2.05	0.00	10.78
DKW1	17.61	0.00	102.54
EE00	2.61	0.00	13.82
ES00	16.91	1.15	78.29
FI00	1.02	0.00	8.29
FR00	20.79	0.00	238.18
GR00	1.34	0.00	17.17
GR03	0.92	0.21	4.10
HR00	0.00	0.00	0.00
HU00	1.01	0.00	9.18
IE00	0.72	0.00	5.54
ITCA	0.00	0.00	0.00
ITCN	2.87	0.00	37.41
ITCS	3.43	0.00	37.66
ITN1	9.44	0.00	124.46
ITS1	0.23	0.00	0.55
ITSA	0.03	0.00	0.17
ITSI	0.44	0.00	5.54
LT00	6.97	0.00	41.48
LUG1	1.64	0.00	8.65
LV00	0.09	0.00	0.62
MD00	0.00	0.00	0.00
ME00	0.00	0.00	0.00
MK00	0.16	0.00	0.99
MT00	0.10/0.00	0.00	0.37/0.00
NL00	19.90	0.00	160.36
NOM1	0.71	0.00	2.01
NON1	0.00	0.00	0.00
NOS1	0.46	0.00	1.64
NOS2	0.00	0.00	0.00
NOS3	0.00	0.00	0.00
PL00	56.59	0.00	298.66
PT00	0.00	0.00	0.00
RO00	0.06	0.00	0.06
RS00	0.03	0.00	0.00
SE01	0.00	0.00	0.00
SE02	0.00	0.00	0.00
SE03	1.31	0.00	6.68
SE04	1.88	0.00	12.61
SI00	0.62	0.00	7.73
SK00	2.07	0.00	14.55
UKNI	0.23	0.00	1.68

Table 18: Country EENS (average) and ENS percentiles for TY 2035

Study zone	Average [GWh]	P50 [GWh]	P95 [GWh]
DK00	19.66	0.00	113.91
ISEM	0.95	0.00	7.02
IT00	16.45	0.00	206.24
LU00	1.64	0.00	8.65
NO00	1.17	0.00	3.41
SE00	3.19	0.00	18.30

2.2.1 Convergence of results

The results are considered stable when the impact of additional simulation (such as an additional forced outage sample or WS) is small or negligible (see Annex 2, Section 11.6). It can be concluded that the ERAA model has converged and the results are stable. This behaviour is observed once 540 MC realisations have been reached, as shown in Figure 4 below.

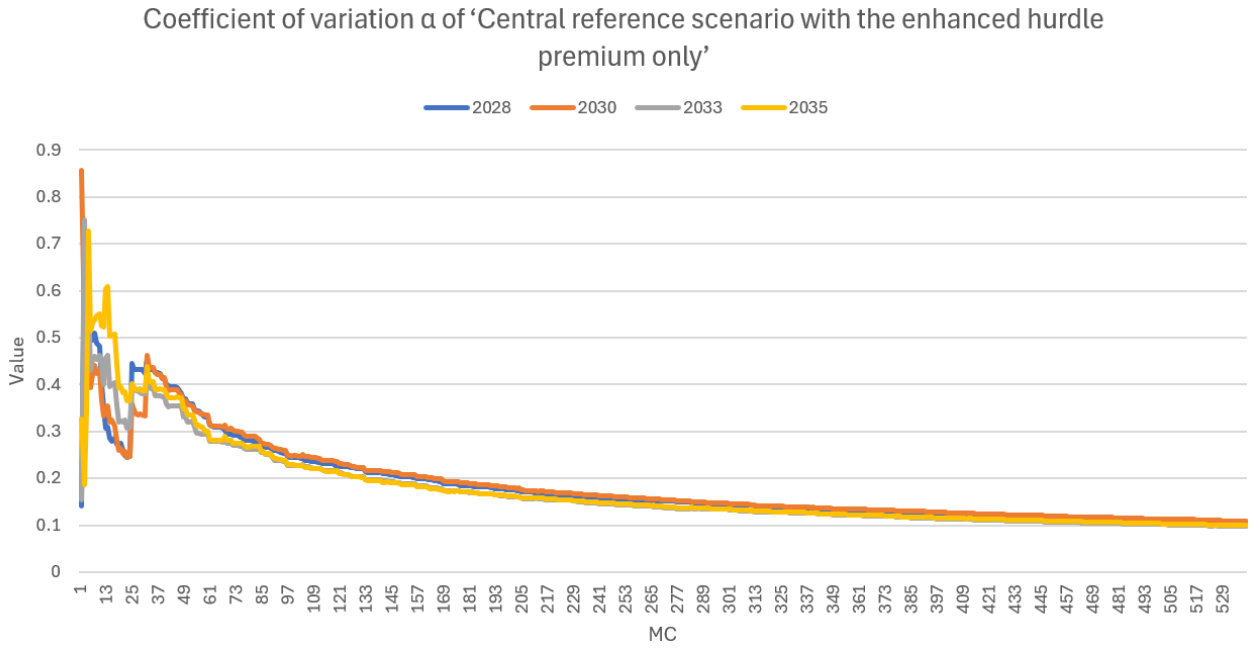

Figure 3: Coefficient of variation α

2.2.2 Changes in the number and distribution of scarcity events from ERAA 2024 to ERAA 2025

Differences in results across ERAA editions are driven by input data updates and modelling enhancements. Input data updates inform the models with recent developments or policy revisions and are essential for keeping simulation results meaningful and up-to-date. Modelling enhancements are included, when feasible and relevant, to reflect the latest developments and needs identified through ongoing exchanges with internal and external stakeholders, while aiming to improve the quality and robustness of the results.

Compared to ERAA 2024, two notable methodological enhancements were introduced in the EVA context: a refined WS selection and an enhanced hurdle premium calculation methodology. All enhancements increase the quality and robustness of ERAA 2025. An extended dataset (net revenues from EVA technologies extracted from the full ERAA 2024 post-EVA economic dispatch (ED) results) was used for the weather selection to ensure better representativity by considering information from all TYs (previously only one) and from all possible forced outage scenarios (previously only one). The hurdle premium calculation methodology enhancement provides more tailored representative hurdle premium rates for gas-fuelled new OCGT and CCGT investments in ERAA by leveraging a utility-based approach using the constant absolute risk aversion (CARA) function. The CARA utility function approach is a standard method of including risk considerations in investment modelling, significantly impacting hurdle rates and differentiating technologies like OCGT and CCGT based on their revenue distribution over the full ERAA 2024 ED results.

Investments in gas-fuelled generation capacities are expected to be more conservative compared to ERAA 2024 due to the hurdle update. Complete information on the methodology and its changes are provided in Annex 2.

3 Curtailment sharing impact on adequacy results

To The purpose of this section is to highlight the impact of the curtailment sharing feature on adequacy results. For all target years of ERAA 2025, the curtailment sharing increases perceived adequacy risks, nearly doubling adequacy results.

The curtailment sharing step is currently implemented as a sequential process following economic dispatch and it remains an integral element of the overall optimisation structure. Therefore, pre-curtailment sharing data do not constitute complete results of the economic dispatch simulations yet might support the interpretation of ERAA 2025 outcomes.

Table 19 details the evolution of adequacy metrics between pre- and post-curtailment sharing for each bidding zone of ERAA 2025.

Table 19: LOLE results for each study zone for the ED module before and after curtailment sharing (without out-of-market measures)

LOLE (h/year)	Target year 2028		Target year 2030		Target year 2033		Target year 2035	
Curtailment sharing	Before CS	After CS	Before CS	After CS	Before CS	After CS	Before CS	After CS
AL00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AT00	0.2	3.1	0.2	1.6	2.2	4.1	0.5	4.2
BA00	4.3	4.3	1.9	1.9	1.2	1.2	1.4	1.4
BE00	3.2	8.9	1.2	9.3	4.6	12.6	1.8	11.8
BG00	1.6	8.7	0.1	2.3	0.0	1.6	0.0	0.5
CH00	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0
CY00	0.2	0.2	0.1	0.3	11.0	11.5	21.1	21.6
CZ00	8.2	13.0	13.7	18.5	9.9	15.2	12.5	21.4
DE00	8.4	14.3	9.7	19.6	9.2	19.9	11.8	24.0
DK00	10.1	14.8	11.8	20.1	11.1	20.0	15.7	23.8
DKE1	6.1	14.6	5.1	19.4	1.3	7.0	7.1	16.5
DKW1	8.1	13.0	9.9	19.2	10.6	19.8	13.9	23.1
EE00	23.1	24.1	11.1	13.1	32.0	43.7	6.5	14.7
ES00	5.8	6.4	9.5	11.1	4.5	6.4	7.2	9.1
FI00	0.2	1.3	1.0	1.6	7.6	8.8	1.2	2.8
FR00	3.0	6.6	2.0	6.5	1.7	6.4	1.7	6.3
GR00	1.7	4.3	0.4	2.1	0.0	1.8	0.7	2.4
GR03	2.9	8.3	0.2	3.3	0.5	9.0	0.8	14.3
HR00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HU00	4.4	9.5	1.9	5.1	0.1	3.1	0.1	3.3

LOLE (h/year)	Target year 2028		Target year 2030		Target year 2033		Target year 2035	
IE00	0.3	1.6	0.3	2.1	0.9	3.0	1.8	3.5
ISEM	0.7	2.0	0.9	2.7	1.2	3.5	2.7	4.4
IT00	12.4	16.1	4.4	6.4	3.9	6.7	3.9	5.1
ITCA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ITCN	4.9	11.9	3.7	5.4	2.7	4.3	3.2	4.7
ITCS	7.6	14.1	0.7	3.3	0.7	3.0	1.9	4.3
ITN1	3.3	7.0	3.4	5.6	3.3	6.2	2.6	4.7
ITS1	2.1	9.5	0.0	1.0	0.0	0.9	0.1	1.1
ITSA	2.6	5.1	0.2	0.7	0.1	0.4	0.3	0.7
ITSI	1.4	10.4	0.0	2.0	0.0	1.4	0.0	2.3
LT00	10.8	14.5	8.2	15.9	28.1	38.6	13.1	19.5
LU00	8.4	14.3	9.7	19.6	9.2	19.9	11.8	24.0
LUG1	8.4	14.3	9.7	19.6	9.2	19.9	11.8	24.0
LUV1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
LV00	0.0	0.0	0.0	0.1	0.6	2.8	0.1	2.5
MD00	0.0	0.0	0.0	0.0	1.0	1.0	0.1	0.1
ME00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MK00	1.0	1.0	0.0	0.0	0.1	0.1	0.8	0.8
MT00	12.6	12.6	0.9	0.9	0.8	0.8	1.7	1.7
NL00	1.9	9.0	2.4	12.0	3.6	15.4	3.6	17.9
NO00	0.3	4.0	0.5	6.0	1.4	10.6	0.5	2.9
NOM1	0.1	1.0	0.3	2.8	0.6	6.4	0.4	2.4
NON1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2
NOS1	0.2	4.0	0.4	5.9	1.3	10.6	0.5	2.3
NOS2	0.0	0.0	0.1	0.4	0.3	0.9	0.0	0.0
NOS3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
PL00	6.6	11.7	9.5	14.4	8.6	12.2	19.2	21.8
PT00	0.8	0.8	0.0	0.0	0.0	0.0	0.1	0.1
RO00	3.2	7.6	0.0	1.4	0.0	1.0	0.0	0.2
RS00	2.5	2.5	0.4	0.4	0.0	0.0	0.1	0.1
SE00	0.7	6.5	1.0	7.9	5.1	10.3	1.2	6.9
SE01	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.3
SE02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE03	0.3	1.4	0.8	3.1	4.7	8.5	0.9	4.4
SE04	0.4	6.5	0.3	7.8	0.7	10.0	0.6	6.6
SI00	1.0	5.2	0.3	3.0	0.3	2.2	0.3	2.7
SK00	0.3	4.4	0.3	3.0	0.1	6.1	0.5	9.3
UKNI	0.5	0.6	0.7	1.1	0.6	1.1	1.7	3.0