European Resource Adequacy Assessment

2025 Amended Edition following ACER's decision

Annex 4 – Scarcity Events Analysis

entsoe

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1 Introduction

The primary objective of this annex is to conduct a detailed investigation of scarcity events across all Member States (MSs). To achieve this, scarcity events are first described, including their distribution, frequency, severity, and any simultaneous occurrences across different bidding zones. Following this, the potential sources of scarcity are shown to understand the conditions under which these events arise.

In this document, scarcity events are defined as simulation hours during which the energy not served (ENS) in any study zone exceeds a threshold of 0.02 MW. These events occur when a study zone cannot meet its demand despite maximizing generation and imports. Scarcity events are identified based on simulation results after curtailment sharing.

The analysis is based on the central reference scenario results and considers 540 Monte Carlo simulations, which combine 36 weather scenarios (WSs) and 15 random forced outage samples (FOSs).

The first two sections present the methodology and aggregate results for all study zones, while Section 4 provides detailed analysis for each study zone.

2 Scarcity events description

This section describes the likelihood of simultaneous scarcity events across all study zones, analysing the temporal distribution of scarcity events by target year (TY), month, and week. It also characterises all scarcity events in terms of their duration and magnitude across the simulations.

2.1 Simultaneous scarcity events

Simultaneous scarcity refers to the joint occurrence of ENS across multiple study zones, where the probability of scarcity in one system is influenced by the scarcity in another.
Figures 1 to 27 are interpreted by selecting a reference study zone in the rows (study zone B) and then a target study zone in the columns (study zone A). The value shown represents the probability that target study zone A experiences a scarcity event, given that a scarcity event has occurred in the reference study zone B.
In mathematical terms, simultaneous scarcity probability is estimated as conditional probability, see Eq. 1:

$$P(A = A_s | B = B_s) = \frac{P(A = A_s, B = B_s)}{P(B = B_s)} \; , \; (1)$$

where A_s and B_s represent the scarcity situation in A and B, respectively.
The simultaneous scarcity events are defined here, when two study zones have scarcity at the same MC simulation and the same hour.
To improve the visualisation and readability of simultaneous scarcity events, the study zones are divided and displayed separately by European region.[1] Since some study zones – BA00, CY00, MK00, RS00, and MD00 – are not included in the capacity calculation regions (CCRs), the full simultaneous analysis for all the study zones in the European Resource Adequacy Assessment (ERAA) scope is shown in the Appendix.

[1] The aggregation was performed using the CCR as guidance: ACER Decision 04/2024 - CCR methodology amendment, and ACER Decision 04/2024 - Annex I

2.1.1 Baltic

In the cell corresponding to LT00 and EE00, the 0.21 value indicates that, given that the scarcity event has occurred in LT00, there is a 21% probability that it also occurs in EE00.

TY 2028

Figure 1: Simultaneous scarcity events in the Baltics for the central reference scenario in TY 2028

TY 2030

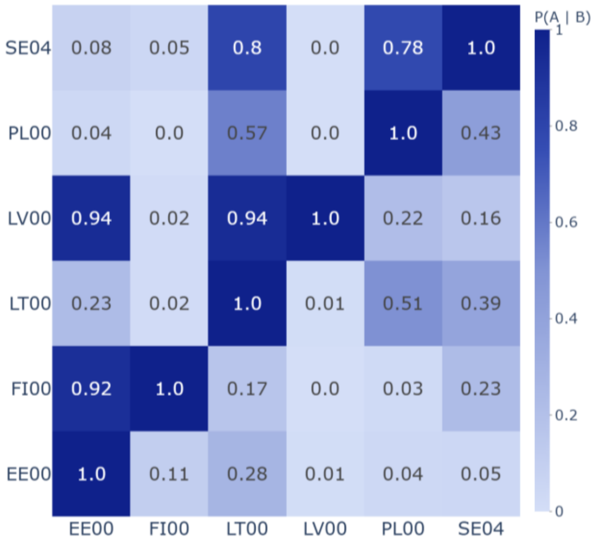


Figure 2: Simultaneous scarcity events in the Baltics for the central reference scenario in TY 2030

TY 2033

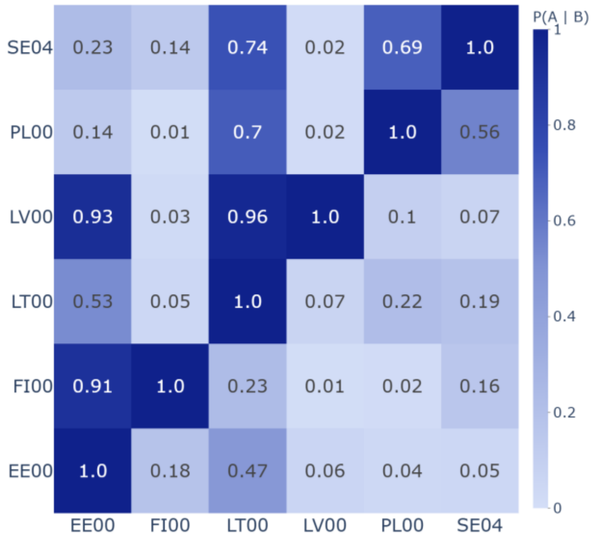


Figure 3: Simultaneous scarcity events in the Baltics for the central reference scenario in TY 2033

TY 2035

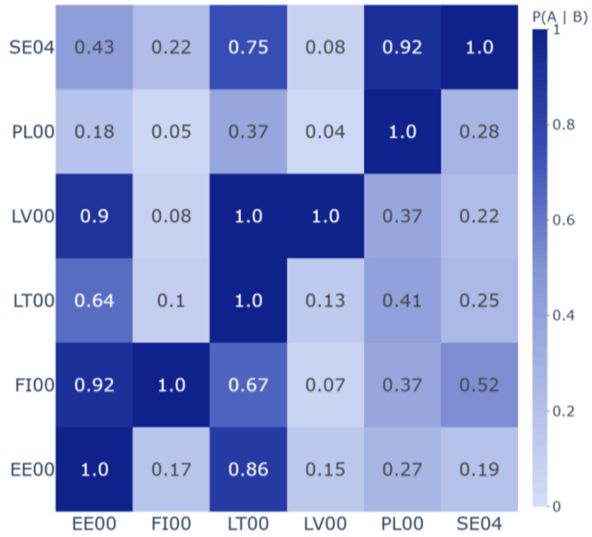


Figure 4: Simultaneous scarcity events in the Baltics for the central reference scenario in TY 2035

1.1.1. Central Europe

TY 2028

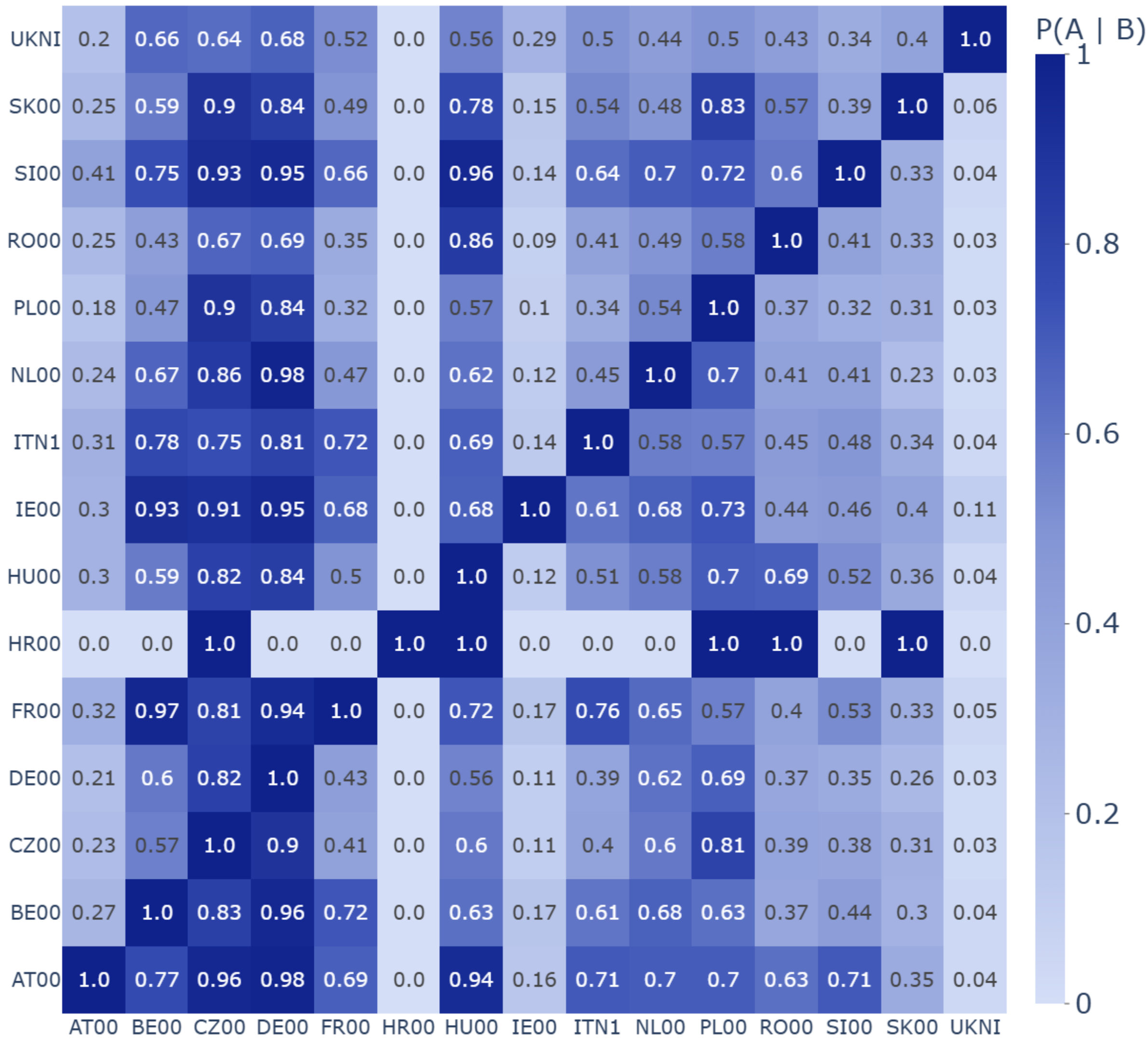


Figure 5: Simultaneous scarcity events in Central Europe for the central reference scenario in TY 2028

TY 2030

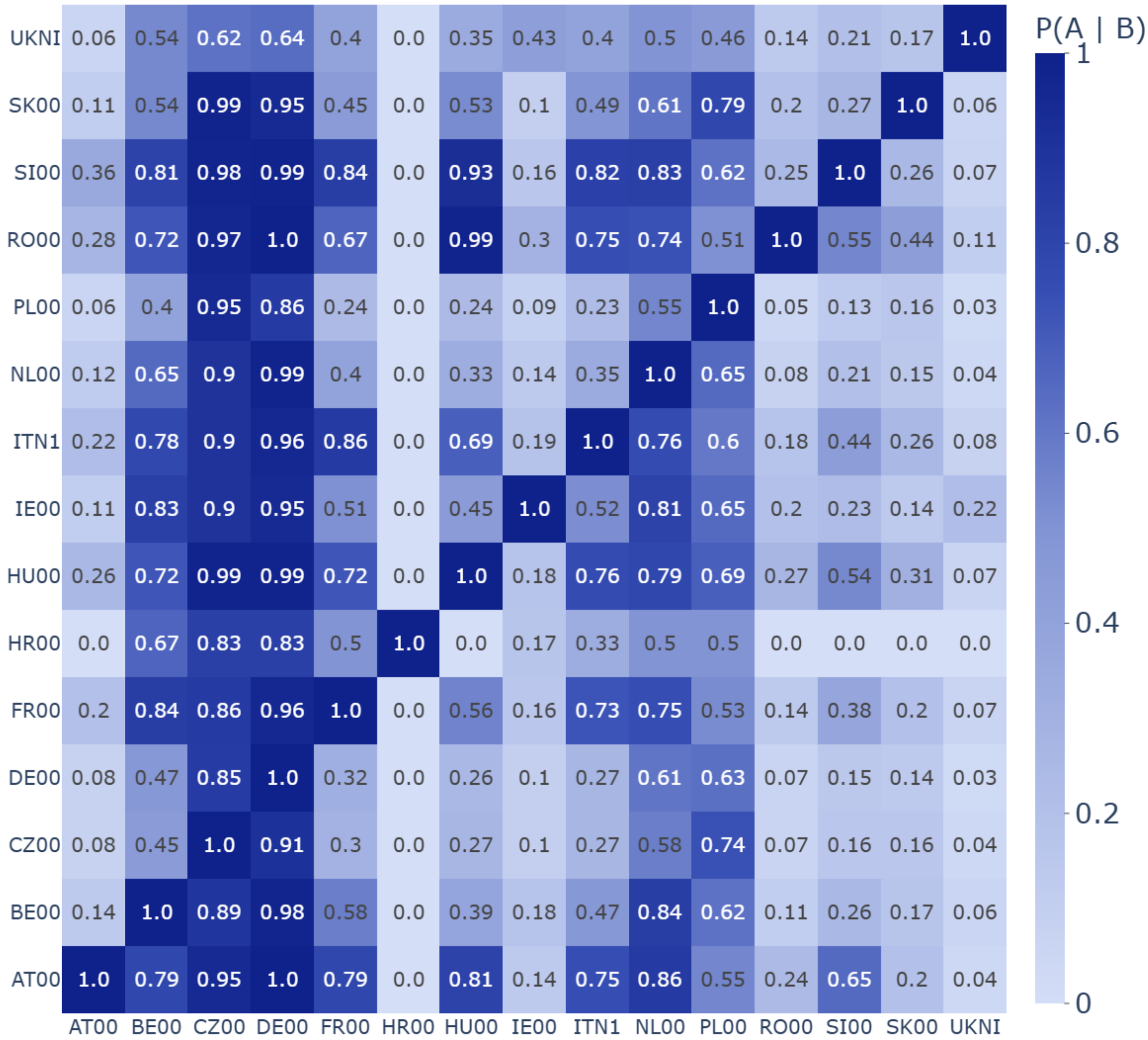


Figure 6: Simultaneous scarcity events in Central Europe for the central reference scenario in TY 2030

TY 2033

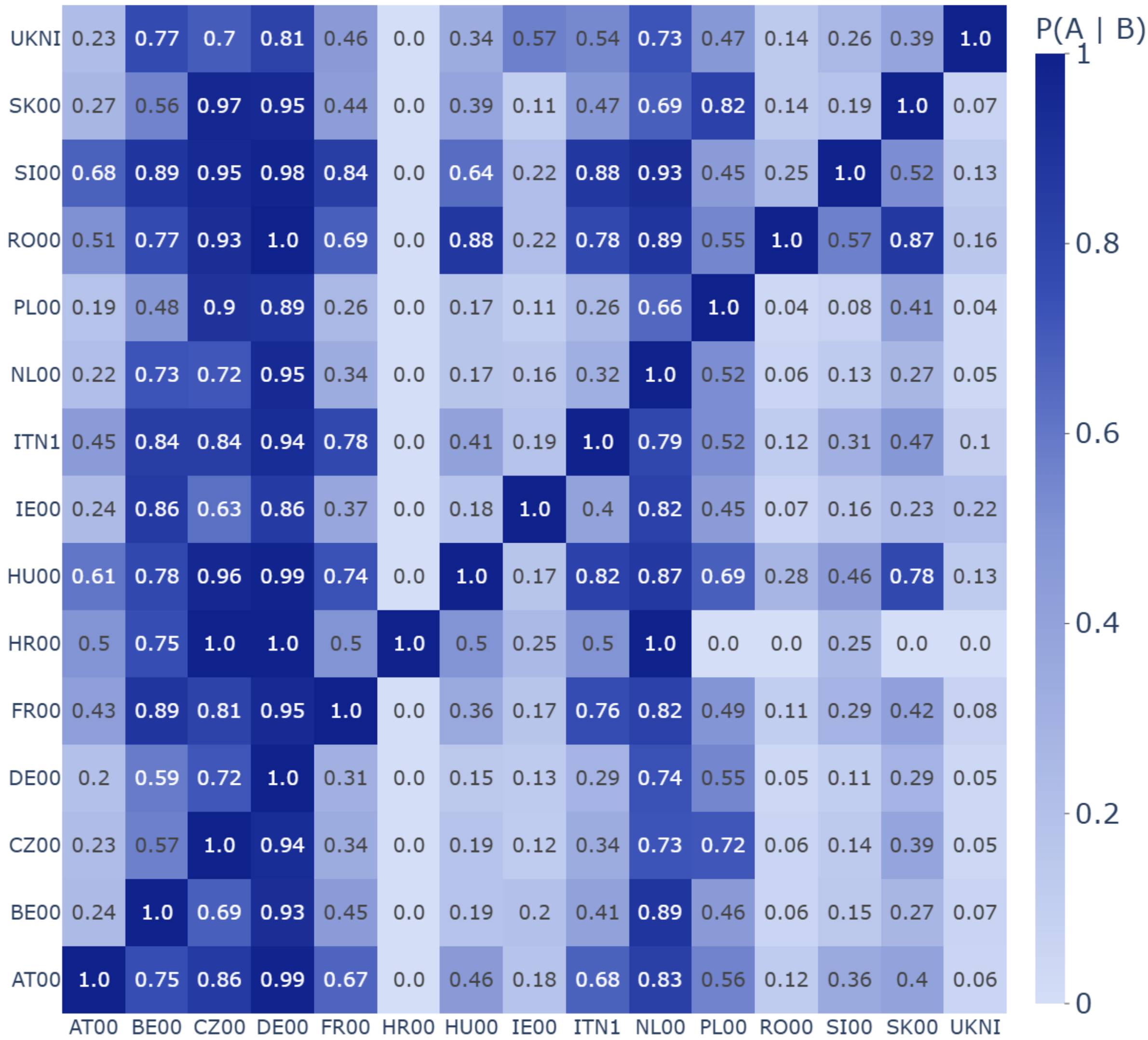


Figure 7: Simultaneous scarcity events in Central Europe for the central reference scenario in TY 2033

TY 2035

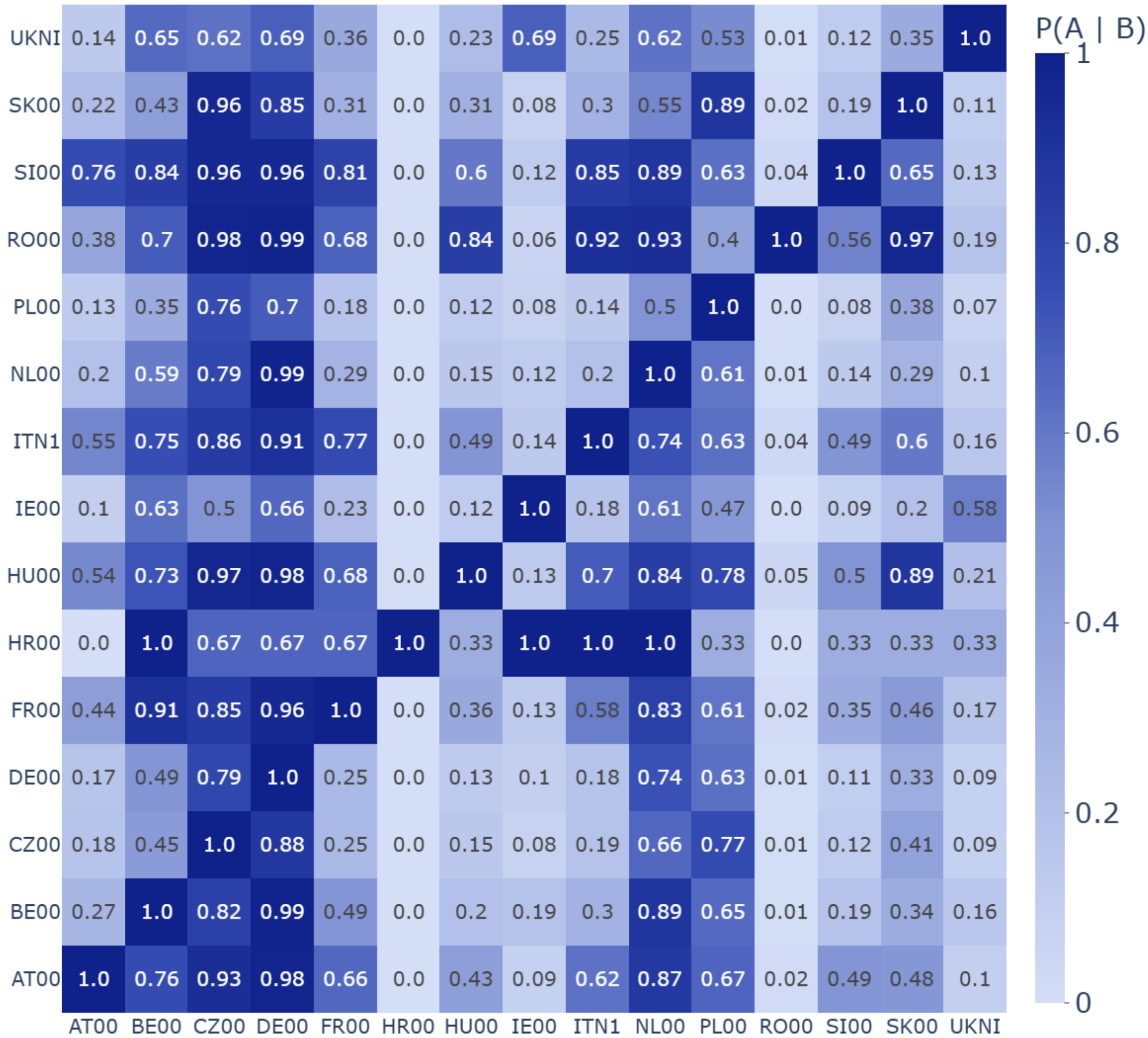


Figure 8: Simultaneous scarcity events in Central Europe for the central reference scenario in TY 2035

2.1.2 Greece-Italy

TY 2028

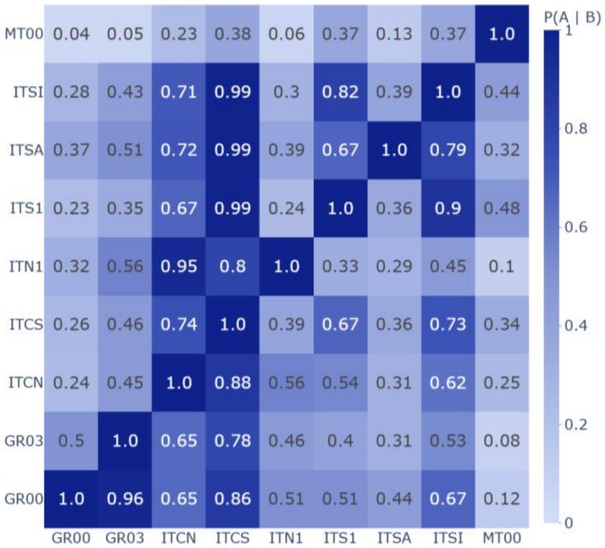


Figure 9: Simultaneous scarcity events in Greece – Italy for the central reference scenario in TY 2028

TY 2030

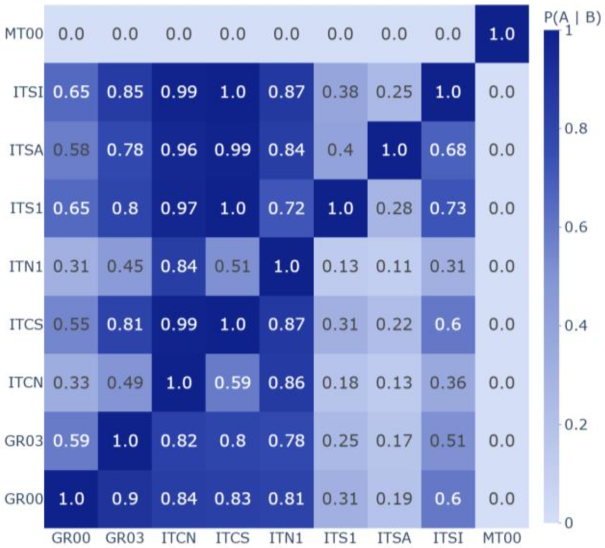


Figure 10: Simultaneous scarcity events in Greece – Italy for the central reference scenario in TY 2030

TY 2033

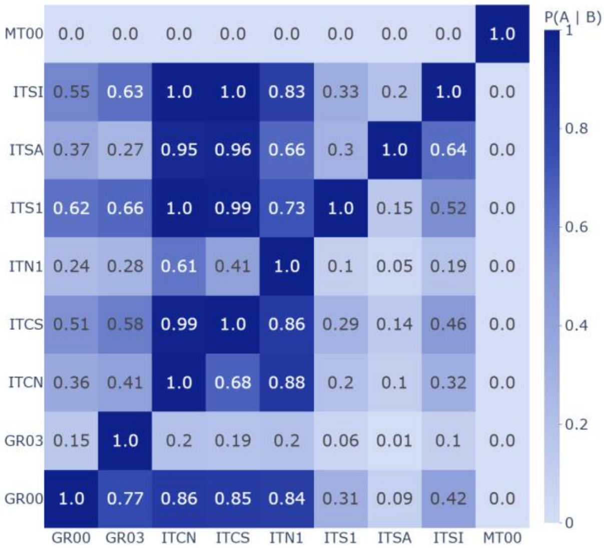


Figure 11: Simultaneous scarcity events in Greece – Italy for the central reference scenario in TY 2033

TY 2035

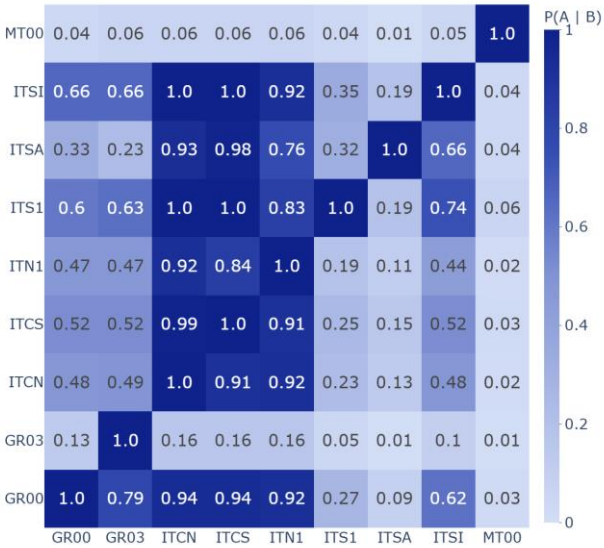


Figure 12: Simultaneous scarcity events in Greece – Italy for the central reference scenario in TY 2035

2.1.3 Hansa

TY 2028

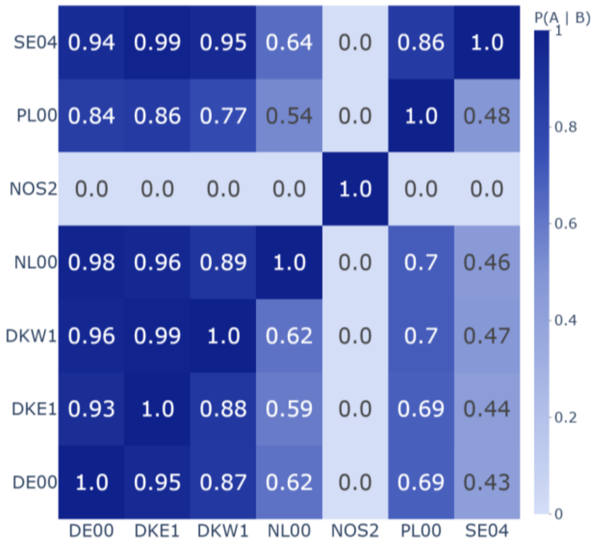


Figure 13: Simultaneous scarcity events in Hansa for the central reference scenario in TY 2028

TY 2030

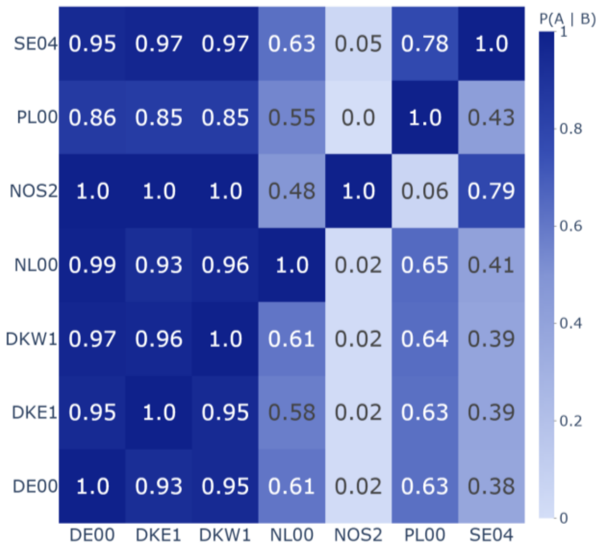


Figure 14: Simultaneous scarcity events in Hansa for the central reference scenario in TY 2030

TY 2033

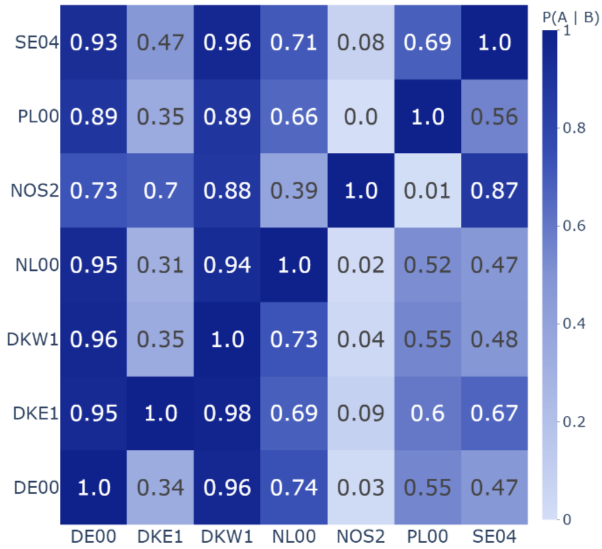


Figure 15: Simultaneous scarcity events in Hansa for the central reference scenario in TY 2033

TY 2035

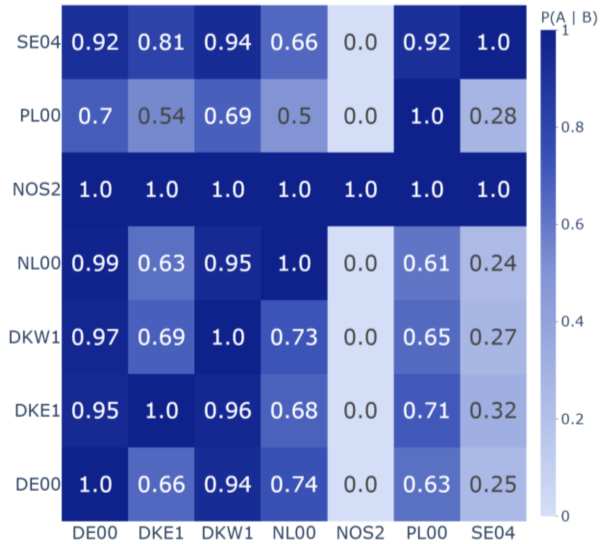


Figure 16: Simultaneous scarcity events in Hansa for the central reference scenario in TY 2035

2.1.4 Nordic

TY 2028

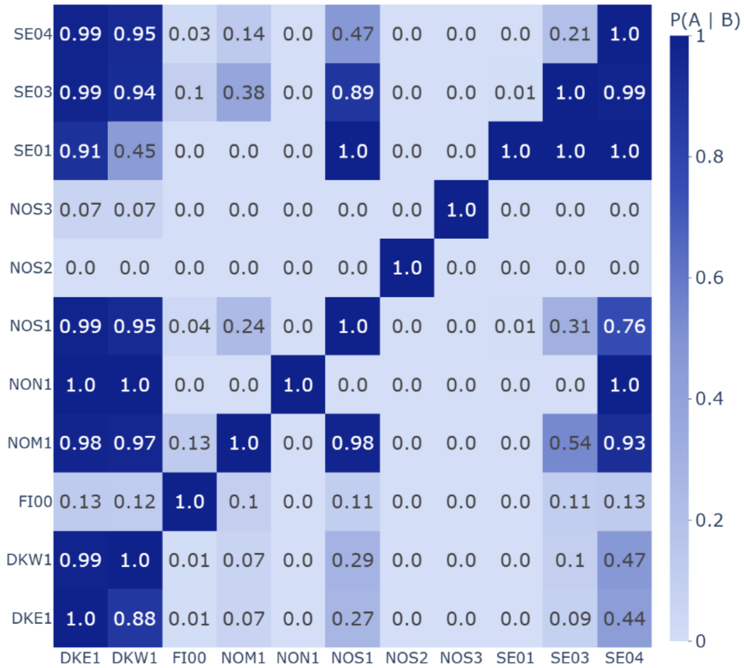


Figure 17: Simultaneous scarcity events in the Nordic region for the central reference scenario in TY 2028

TY 2030

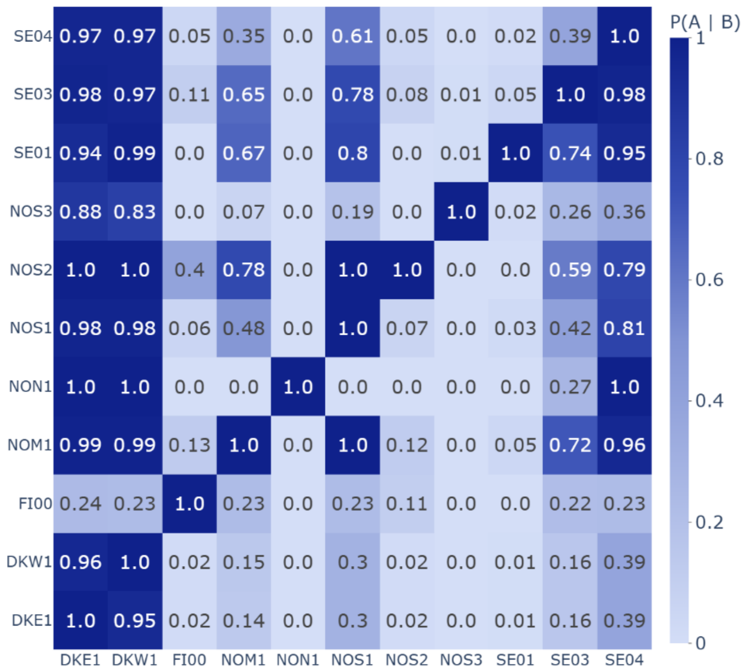


Figure 18: Simultaneous scarcity events in the Nordic region for the central reference scenario in TY 2030

TY 2033

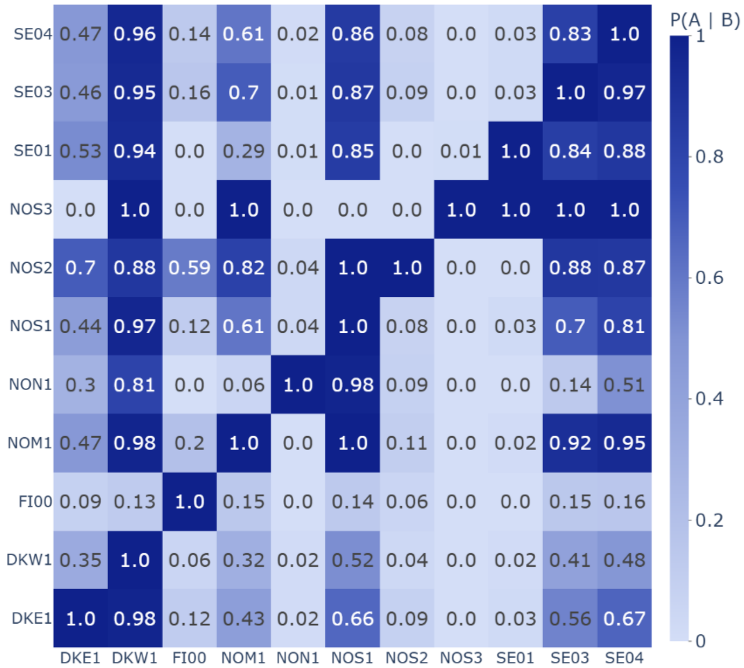


Figure 19: Simultaneous scarcity events in the Nordic region for the central reference scenario in TY 2033

TY 2035

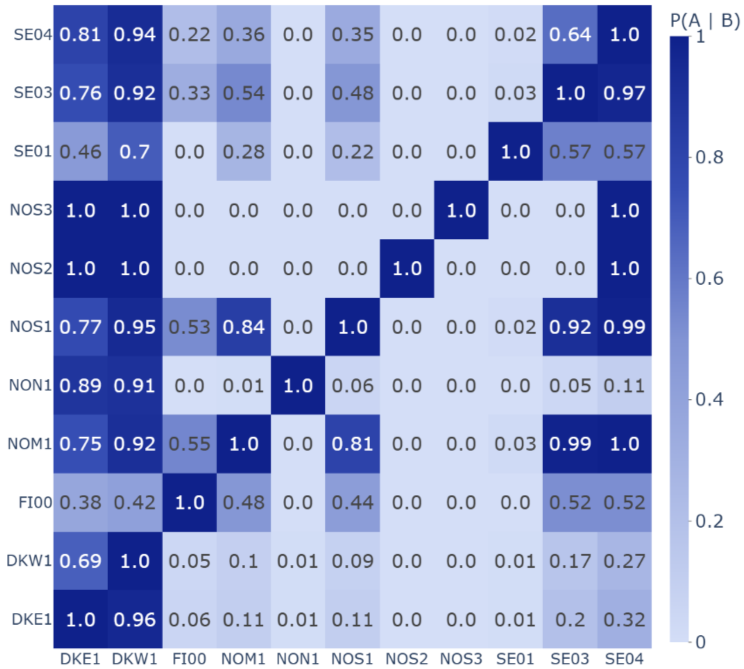


Figure 20: Simultaneous scarcity events in the Nordic region for the central reference scenario in TY 2035

2.1.5 South-East Europe

TY 2028

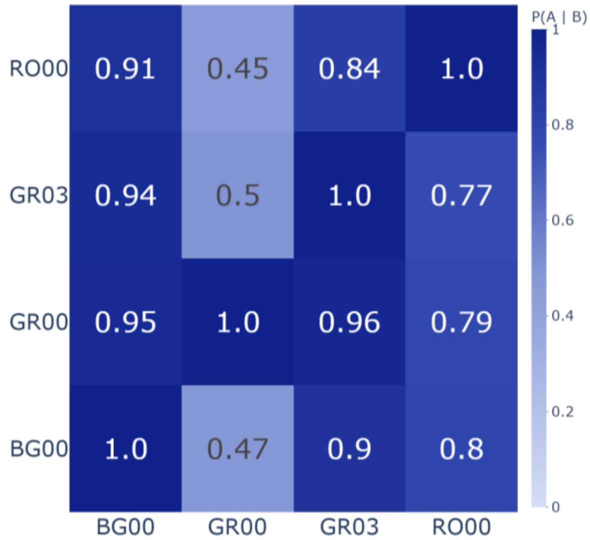


Figure 21: Simultaneous scarcity events in South-East Europe for the central reference scenario in TY 2028

TY 2030

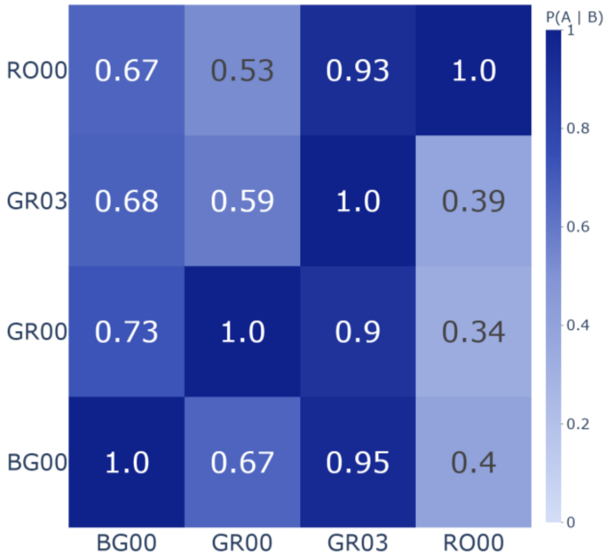


Figure 22: Simultaneous scarcity events in South-East Europe for the central reference scenario in TY 2030

TY 2033

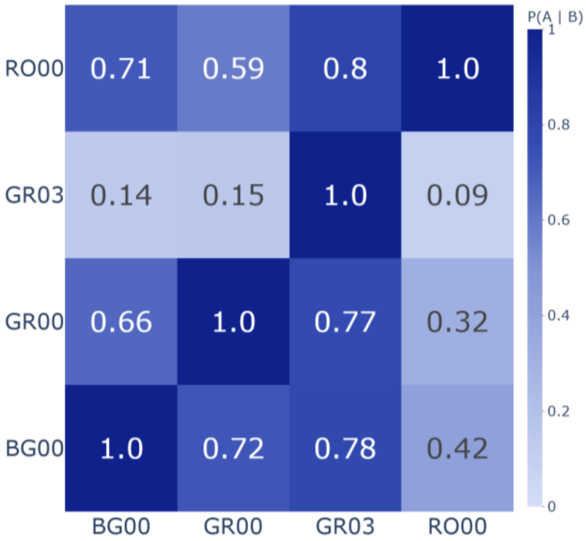


Figure 23: Simultaneous scarcity events in South-East Europe for the central reference scenario in TY 2033

TY 2035

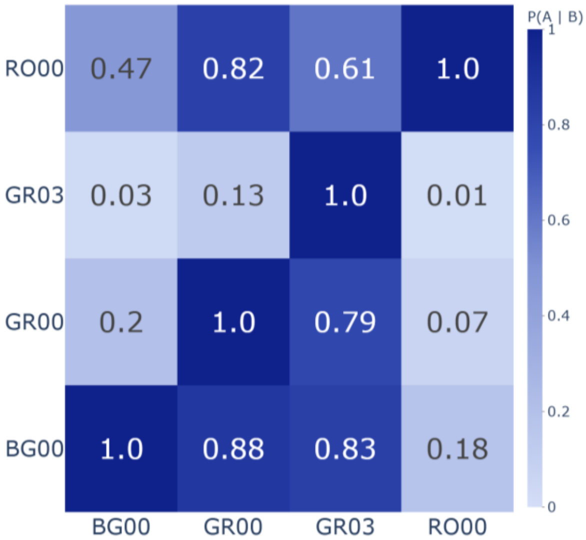


Figure 24: Simultaneous scarcity events in South-East Europe for the central reference scenario in TY 2035

2.1.6 South-West Europe

TY 2028

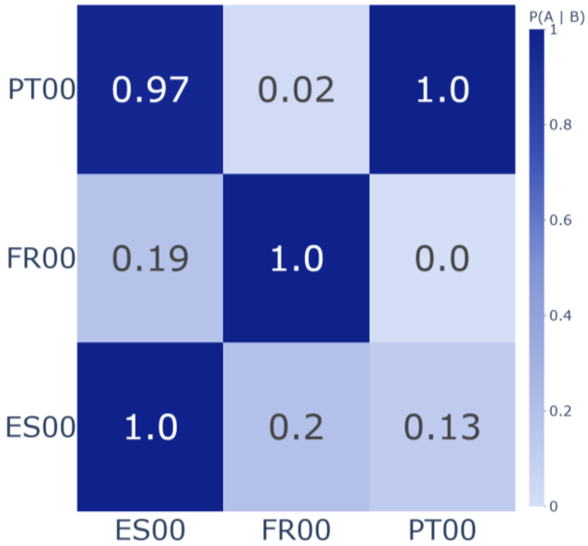


Figure 25: Simultaneous scarcity events in South-West Europe for the central reference scenario in TY 2028

TY 2030

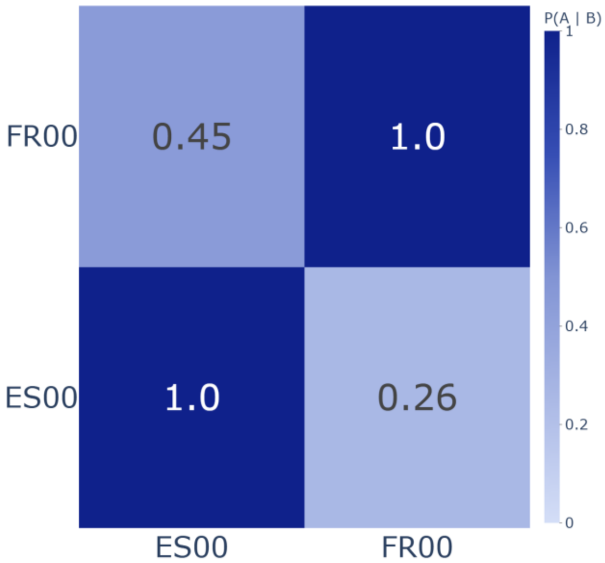


Figure 26: Simultaneous scarcity events in South-West Europe for the central reference scenario in TY 2030

TY 2033

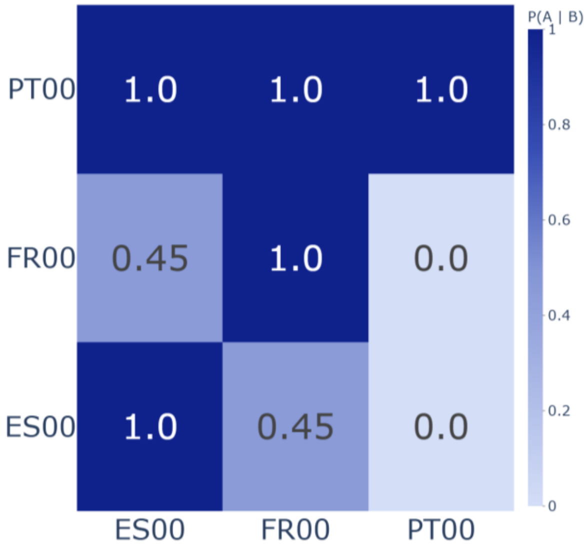


Figure 27: Simultaneous scarcity events in South-West Europe for the central reference scenario in TY 2033

TY 2035

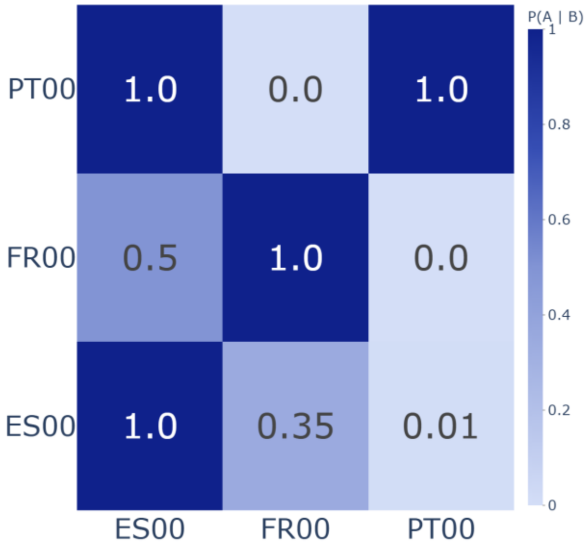


Figure 28: Simultaneous scarcity events in South-West Europe for the central reference scenario in TY 2035

3 Scarcity temporal distribution

To more precisely characterise the timing of scarcity events throughout the year, a weekly-hourly ENS distribution analysis is conducted. The weekly–hourly ENS distribution analysis, Figure 29, provides a detailed view of the temporal structure of electricity scarcity in the system.

Expected energy not served (EENS, MWh) is aggregated across calendar weeks and hours of the day, as well as WSs and (FOSs), for four TYs: 2028, 2030, 2033, and 2035. Each simulation represents a single combination of a WS and a FOS. This approach yields an estimate of the EENS for each week and hour, capturing both weather-driven variability and system reliability uncertainty.

In mathematical terms, the EENS is computed for each combination of week (n) and hour (h), summing across all study zones (z) to represent the total EENS, see Eq. 2:

$$EENS_{n,h} = \frac{1}{S.W} \sum_{s \in S} \sum_{w \in W} \sum_{z \in Z} ENS^{s,w}_{z,n,h}, \quad (2)$$

where, S is the number of FOSs and W is the number of WSs.

This provided the EENS for each week and hour, averaged across all model runs. The results are represented in a week–hour heatmap, showing how adequacy concerns vary throughout the year and across hours of the day.

This aggregation captures both seasonal and diurnal variations in system adequacy. Seasonal variations reflect patterns in demand and weather-dependent generation, while diurnal variations represent typical hourly net load profiles within a day.

A seasonal pattern is visible, with higher ENS generally occurring during winter weeks. Peak ENS occurs primarily during morning and evening hours, consistent with the typical "duck curve". Certain winter weeks show a higher risk of scarcity, and overall ENS level increase TYs, as expected.

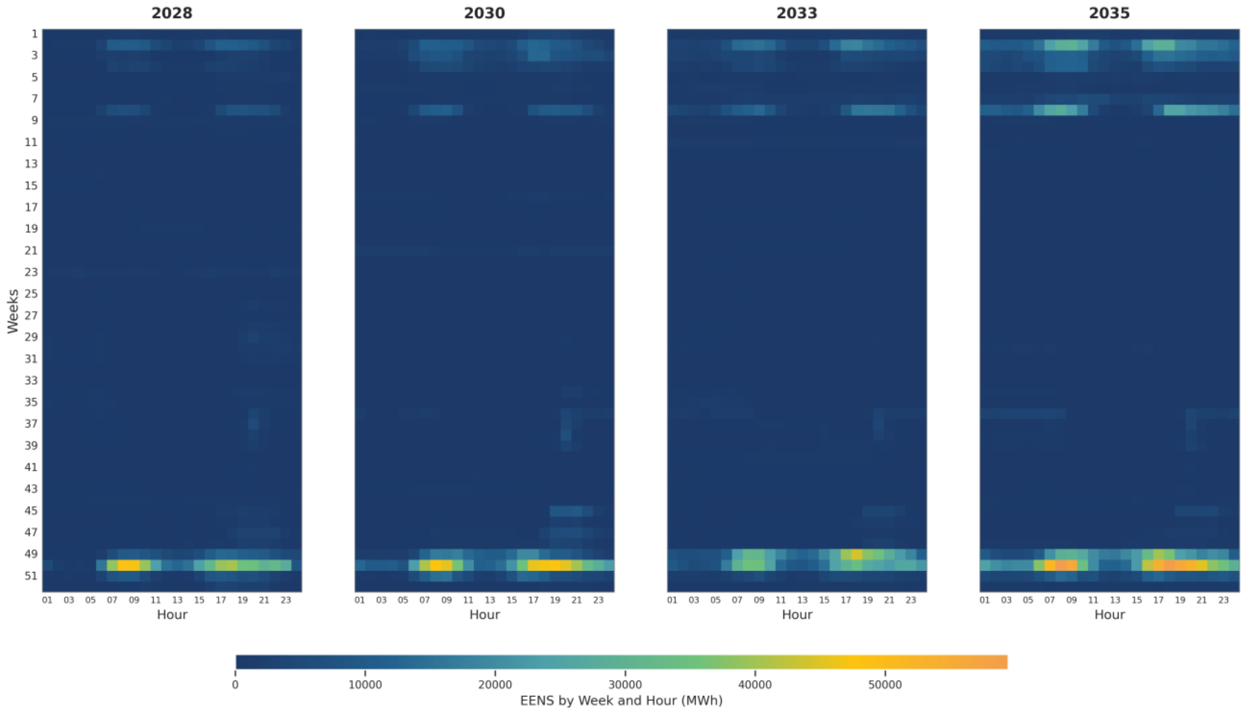


Figure 29: Scarcity temporal distribution in Year-week and hour of central reference scenario

To study the daily pattern, the EENS is calculated for each study zone (z) and hour (h), as Eq. 3:

$$EENS_{z,h} = \frac{1}{S.W} \sum_{s \in S} \sum_{w \in W} ENS_{z,h}^{s,w}, (3)$$

To emphasise the temporal distribution rather than absolute magnitudes, the values are normalised by dividing each zone’s hourly EENS by its maximum hourly value. This scales all zones between 0 and 1, where 1 corresponds to the hour with the highest EENS for that zone.

$$EENS_{z,h}^{norm} = \frac{EENS_{z,h}}{max_{h'} EENS_{z,h'}}, (4)$$

In Figure 30, higher ENS values are shown in orange, while lower values appear in blue. The colour scale is normalised across all TYs, allowing for direct comparison of scarcity intensity and temporal patterns between TYs.

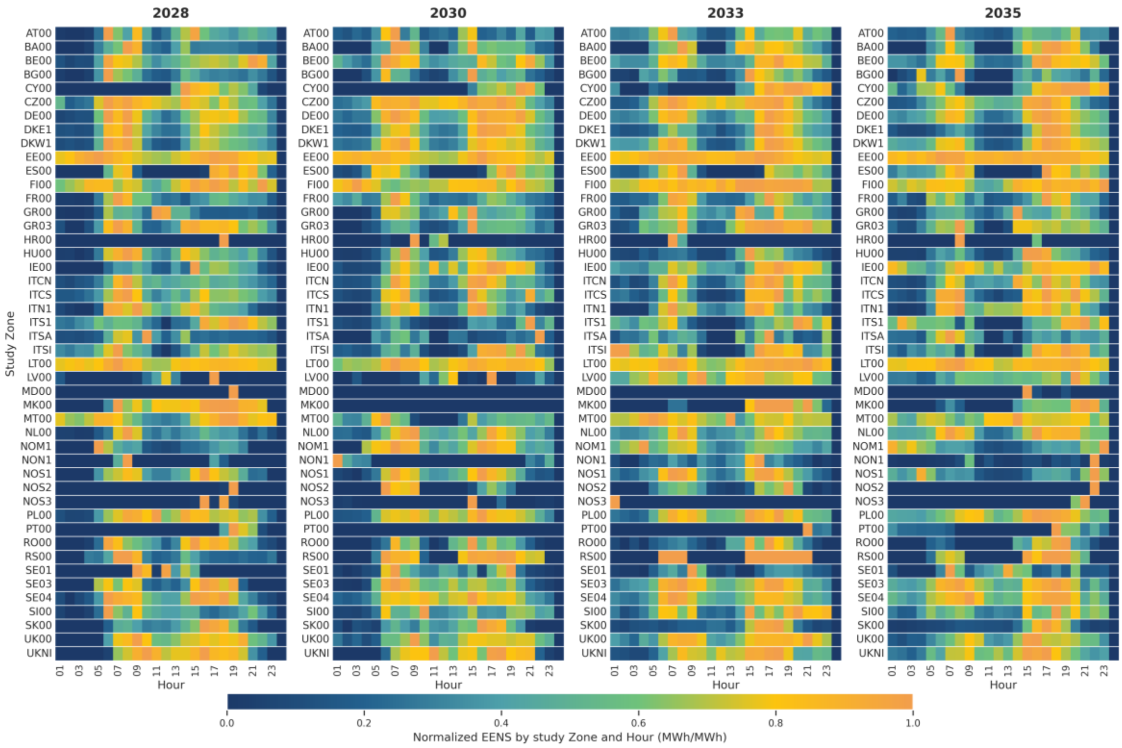


Figure 30: Scarcity temporal distribution in study zones and hour for the central reference scenario

To analyse seasonal adequacy patterns, the EENS is computed for each study zone (z) and month (m) and normalised as Eq. 5 and Eq. 6, respectively:

$$EENS_{z,m} = \frac{1}{S.W} \sum_{s \in S} \sum_{w \in W} ENS^{s,w}_{z,m}, (5)$$

$$EENS^{norm}_{z,h} = \frac{EENS_{z,m}}{max_{m'} EENS_{z,m'}}, (6)$$

This scales the monthly EENS between 0 and 1, where the month with the highest EENS for that study zone. The result is shown in the study zone–month heatmap in Figure 31.

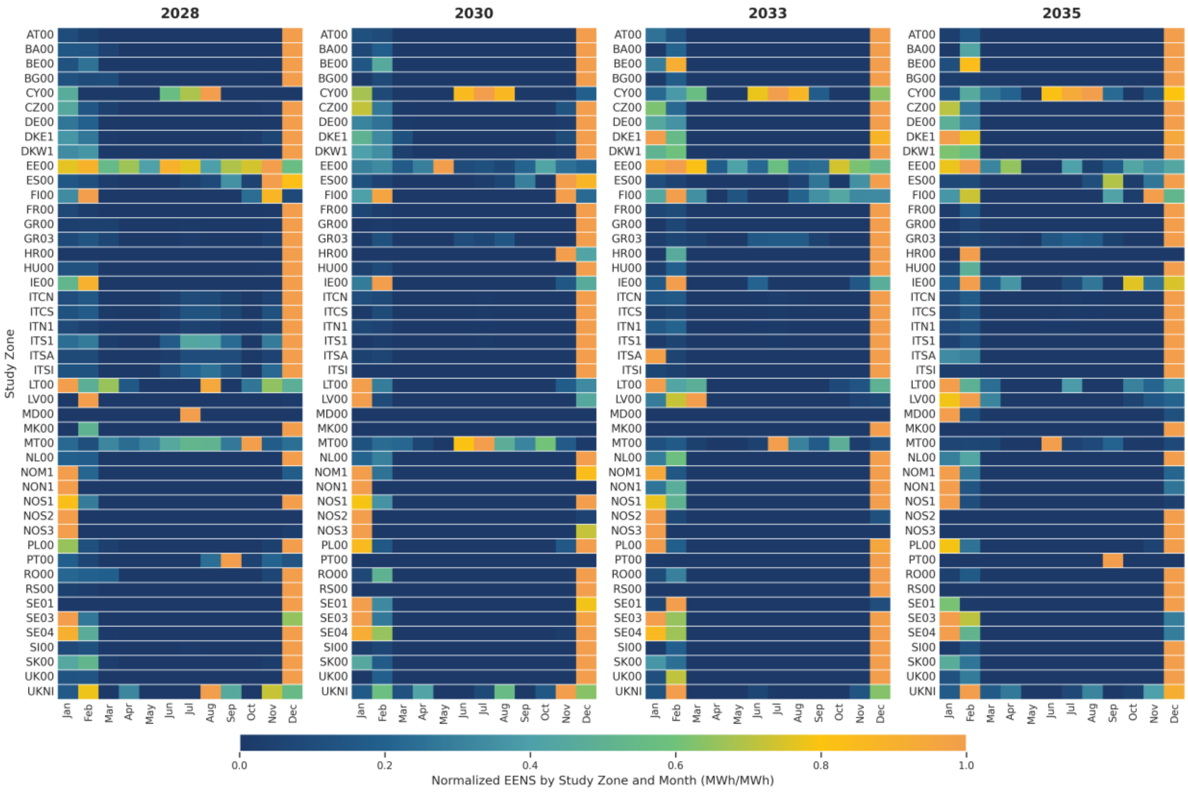


Figure 31: Scarcity temporal distribution in study zones and year-month for the central reference scenario

4 Individual scarcity events distribution

In addition to the heatmaps, relying solely on average values presents a significant limitation: they fail to capture the full distribution of scarcity events, particularly rare and extreme occurrences. To address this, scatter plots are used to complement the adequacy analysis by providing insights beyond expected values, focusing also on the characteristics of individual scarcity events. This approach allows for closer examination of tail events — those with low probability but potentially high impact — which are essential for comprehensive adequacy assessment.

Scarcity events were defined as sequences of consecutive hours during which ENS occurs. In the scatter plots in Figure 32, each dot represents a single scarcity event across all WSs and FOSs for a specific study zone. The y-axis indicates the average event intensity (ENS, MW), the x-axis represents duration of event (h), and the colour scale shows the total ENS per event (GWh).

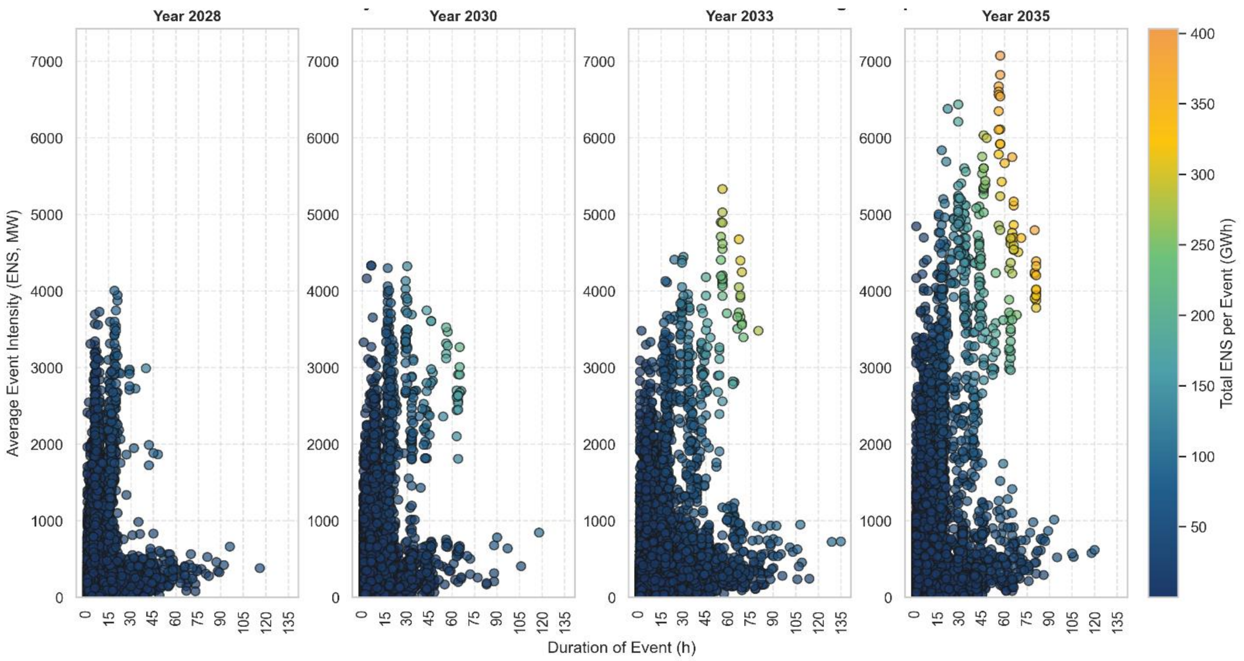


Figure 32: Individual scarcity events across weather scenarios and forced outage samples

As a complement, a separate figure (Figure 33) illustrates an instance of a single scarcity event in a study zone. This figure corresponds to a single data point in the scatter plot and shows the hourly ENS during a continuous scarcity event. This plot helps understand the meaning of each scatter data point.

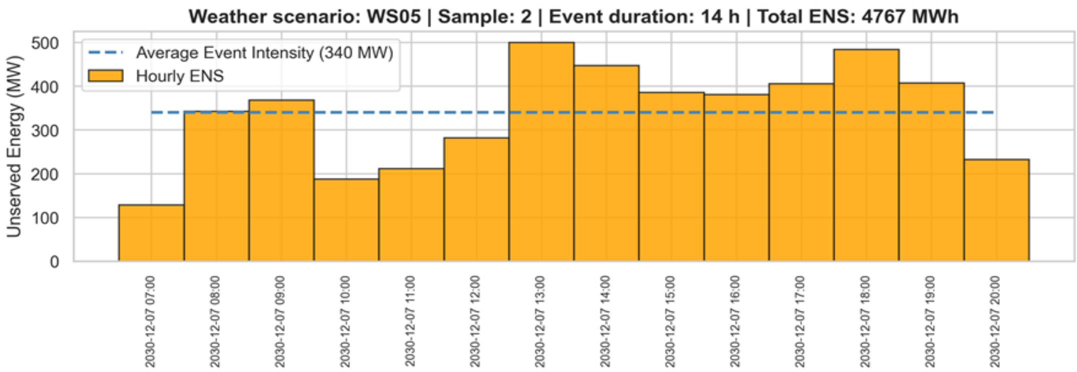


Figure 33: Individual scarcity event

5 Source of scarcity

The “balance constraint” expressing the ENS during a scarcity event is described in mathematical terms in Eq.7:

$$ENS_{h,z} = Demand_{h,z} - Generation_{h,z} - Imports_{h,z} + Exports_{h,z}, (7)$$

where h stands for hours and z for study zone.
This equation is valid for any MC run (for any TY, WS, and forced outage (FO) pattern). As such, demand, generation, and the balance of Imports and Exports during scarcity can be drivers of scarcity.
The values of demand, generation, and the balance of imports and exports can vary drastically from one study zone to another.
This section begins by examining demand as the first key factor, followed by an assessment of the net position during scarcity events. Finally, it presents a deeper analysis of the roles of generation and maintenance in contributing to scarcity.

5.1 Native demand percentiles during scarcity

Native demand during scarcity is reported hourly for each study zone and TY. To make values from different study zones comparable, values are reported as the percentile rank (e.g., 98th percentile) with respect to a single distribution of all hourly demand values for all WSs. These percentile ranks of hourly demand during scarcity are computed repeatedly for each TY and study zone, each time comparing with the corresponding distribution of hourly values for all WSs.
In Figure 34, the native demand percentile during scarcity is reported in the shape of a histogram. The X-axis represents “contribution to LOLE”, plotted for each exogenous load percentile. The contribution to LOLE is simply the count of scarcity hours in each bin (represented by the histogram) but divided by the number of Monte Carlo realisations. In this way, the total LOLE value shown above can be analysed as being composed of the LOLE contribution per exogenous demand percentile.
The percentile is used to assess whether scarcity events occur mostly during events of unusually high demand (high-demand percentile). The corresponding plots for each study zone are shown in Section 4.

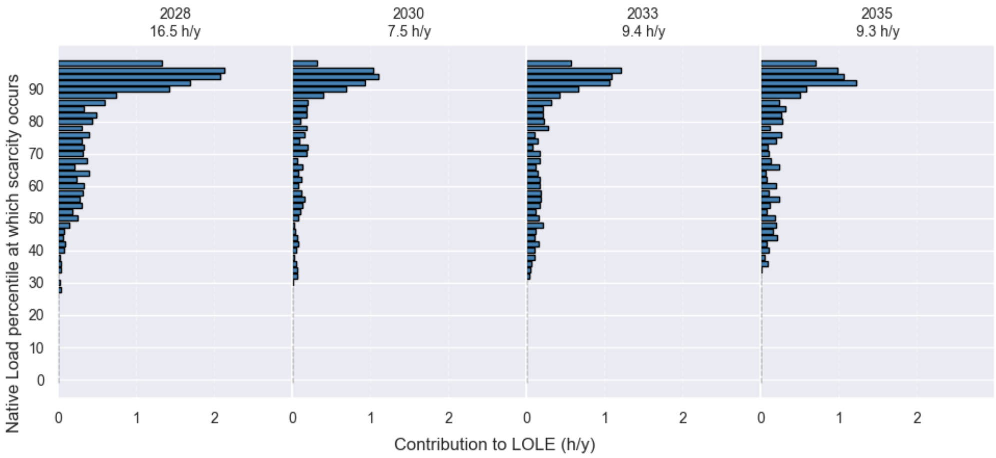


Figure 34: Native demand percentiles during scarcity

5.2 Share of imports and exports during scarcity

The share of imports and exports relative to load is analysed to understand how much a bidding zone relies on imports during hours relative to its load.
As mentioned in Eq. 7, the “balance constraint” expresses the ENS during a scarcity event. This equation is valid for any MC run (for any TY, WS, and FO pattern). As such, the load, generation, and the balance of imports and exports during scarcity can be drivers of scarcity. Next, the balance of imports and exports is expressed as the share of imports/exports (net position) relative to load, Eq. 8:

$$Net\ Position\ relative\ to\ load_{hs,z} = \frac{Net\ Position_{hs,z}}{Load_{hs,z}}\ , (8)$$

where hs stands for hours with scarcity, and $Net\ Position$, see Eq. 9:

$$Net\ Position_{hs,z} = Generation_{hs,z} - Load_{hs,z} + ENS_{hs,z}\ , (9)$$

For all the TYS shown in the following figures, Figure 34 – 37, the study zones are sorted based on their EENS values.

TY 2028

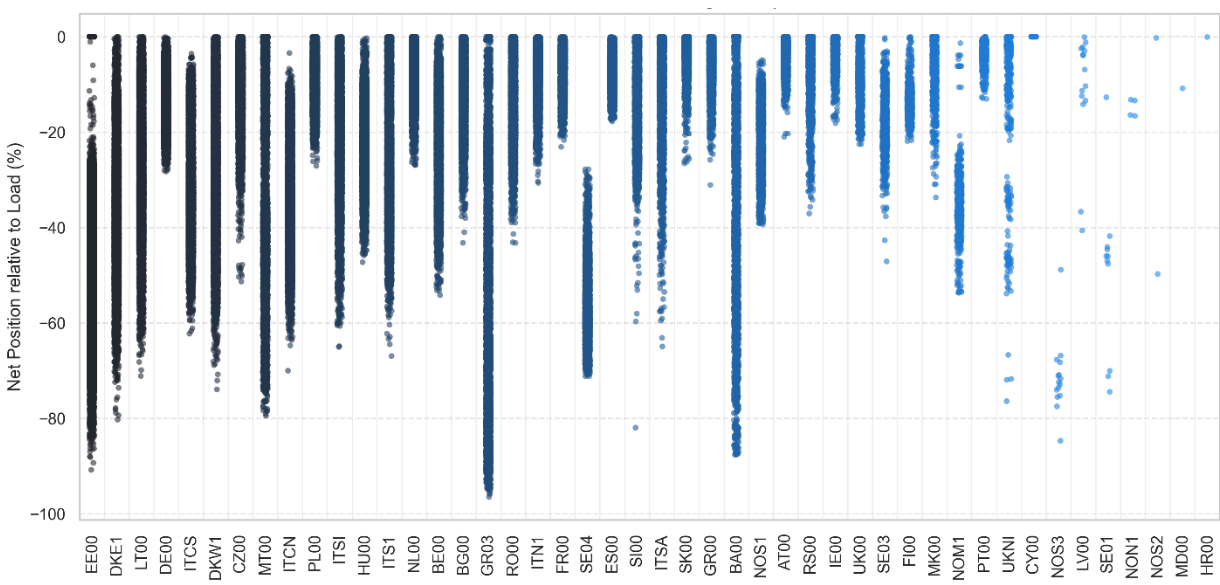


Figure 35: Native load relative to load during scarcity for the central reference scenario in TY 2028

TY 2030

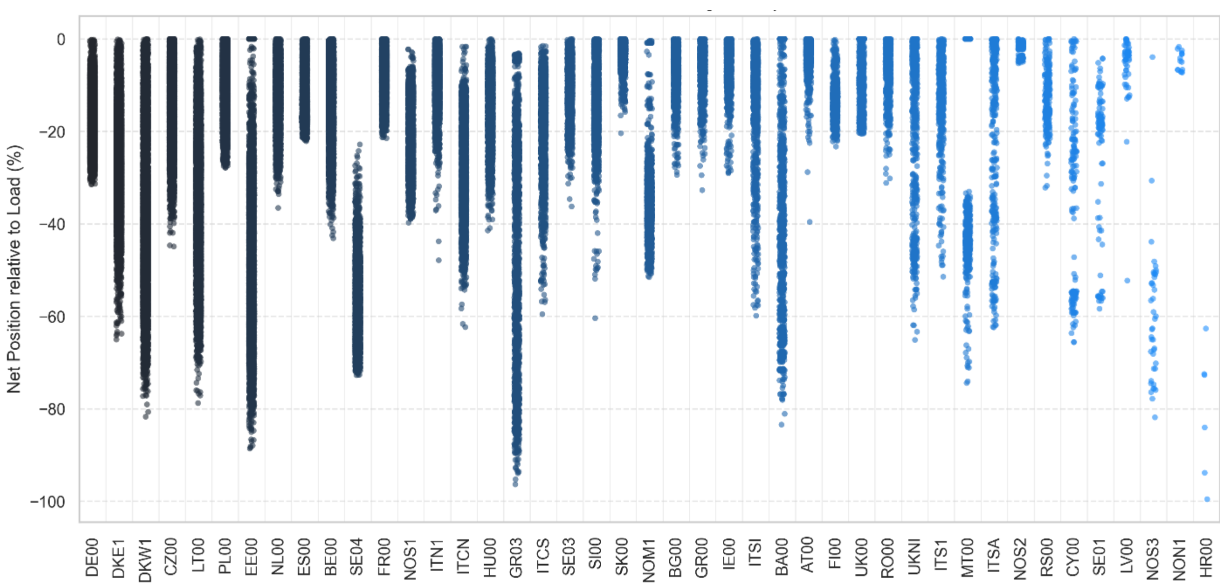


Figure 36: Native load relative to load during scarcity for the central reference scenario in TY 2030

TY 2033

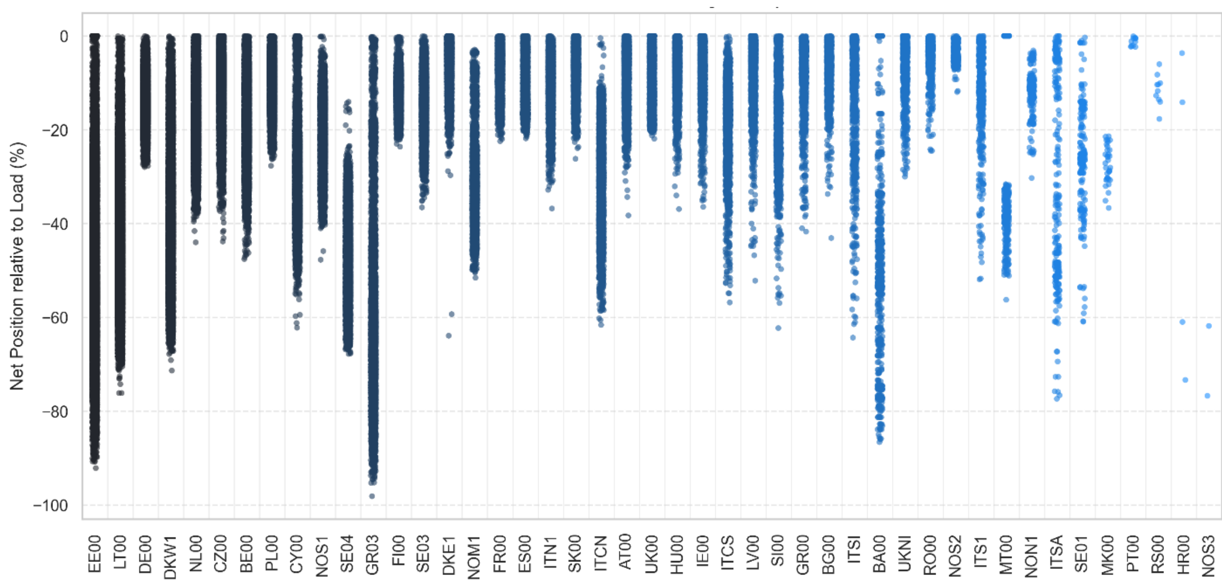


Figure 37: Native load relative to load during scarcity for the central reference scenario in TY 2033

TY 2035

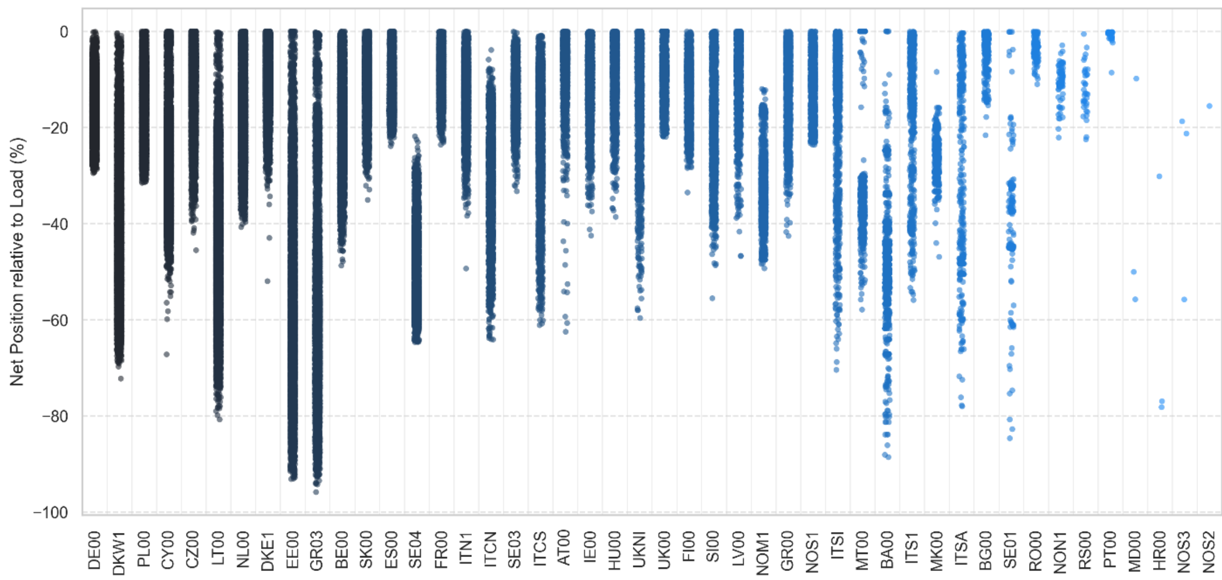
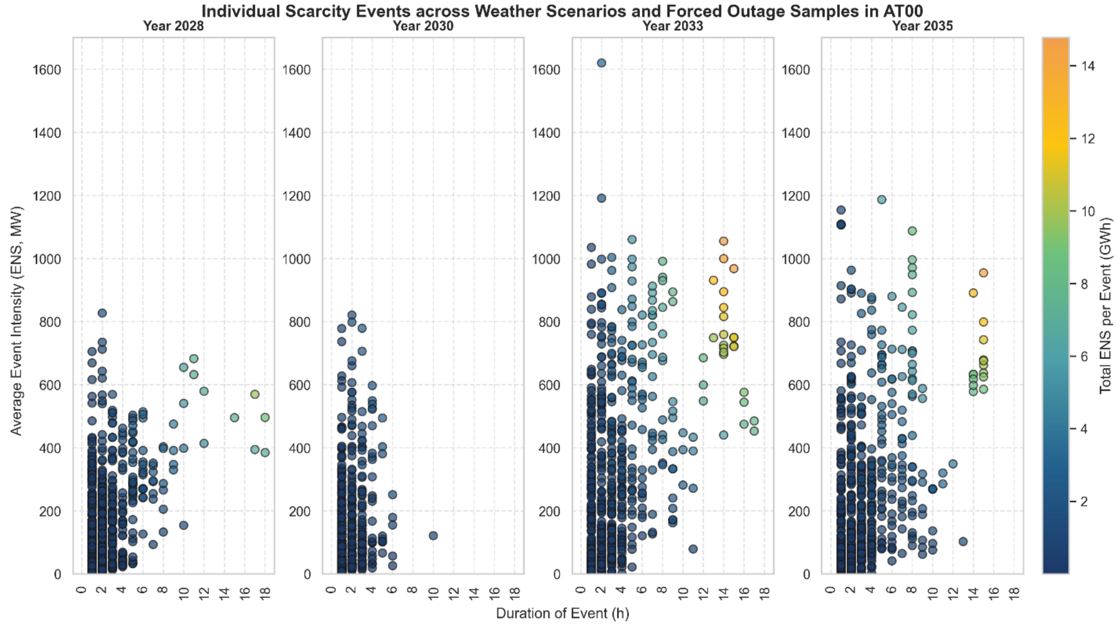


Figure 38: Native load relative to load during scarcity for the central reference scenario in TY 2035

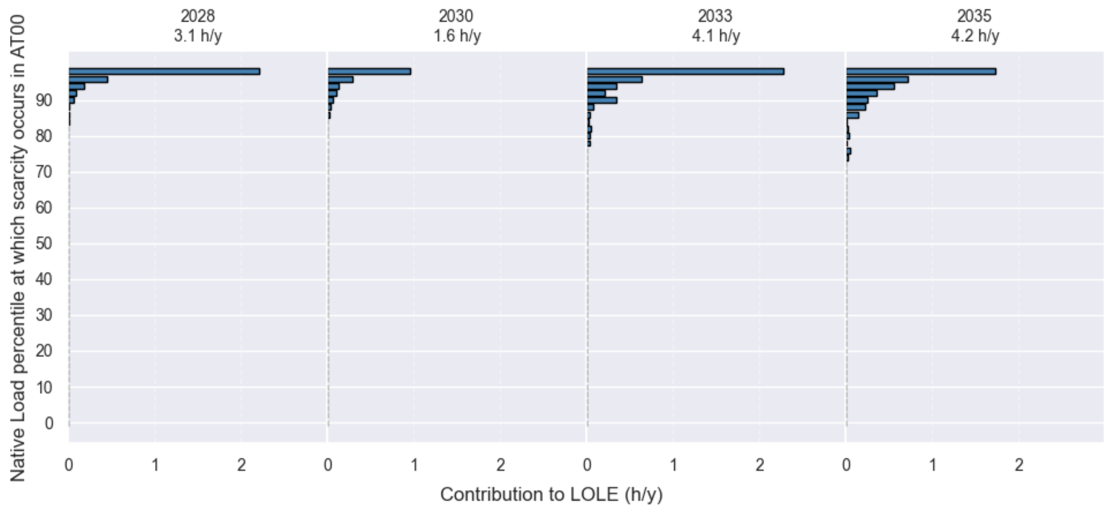
6 Country analysis

6.1 Austria

1. ENS events distribution for the central reference scenario

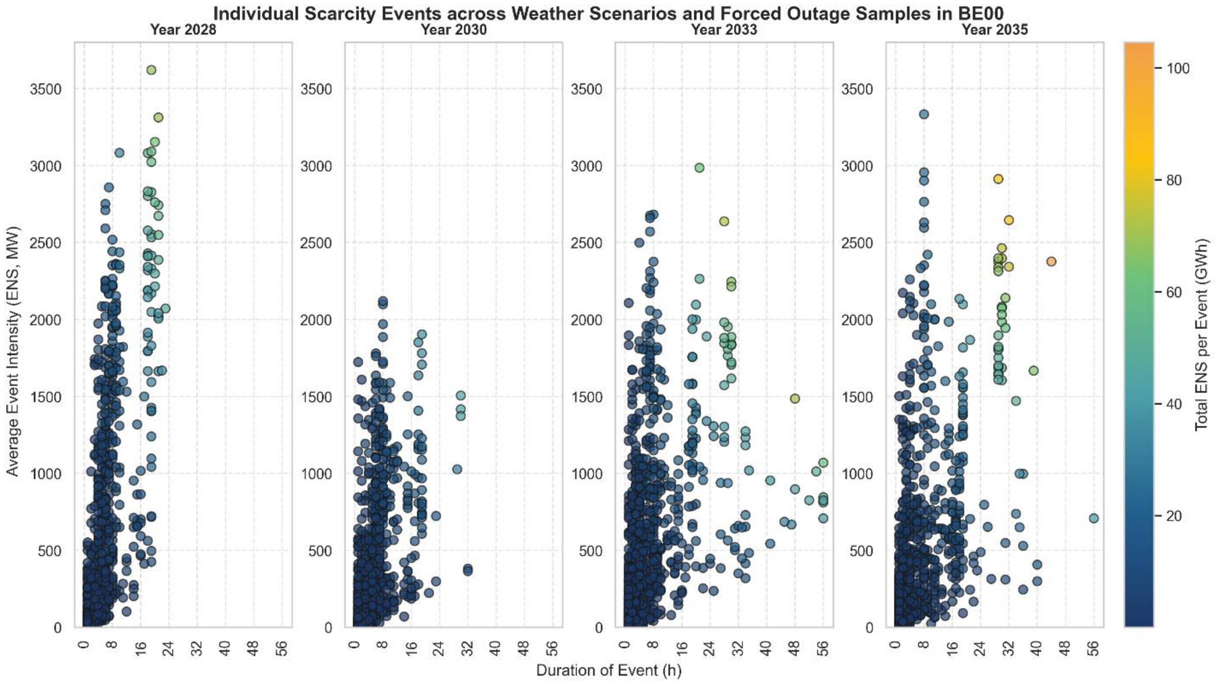


2. Native demand percentiles during scarcity for the central reference scenario

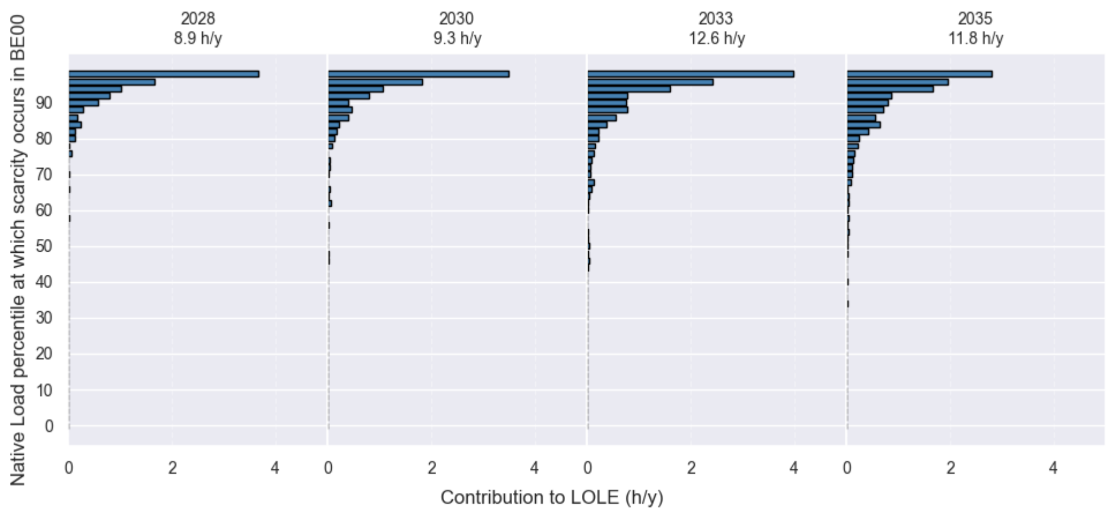


6.2 Belgium

1. ENS events distribution for the central reference scenario

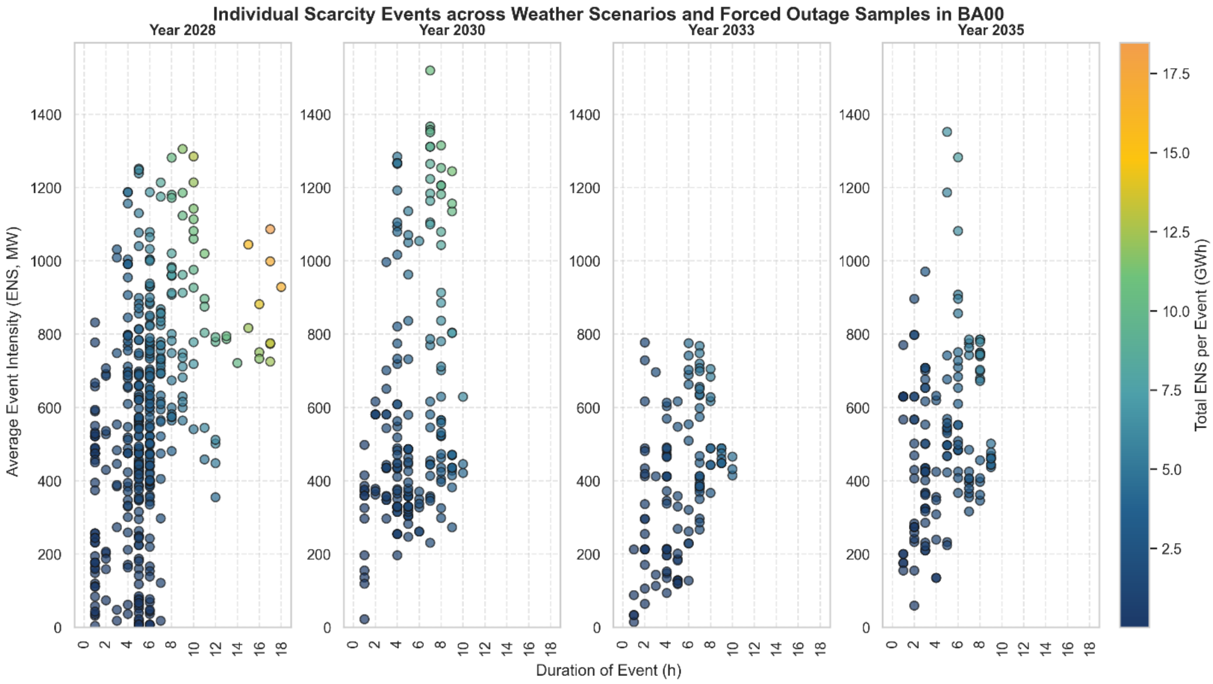


2. Native demand percentiles during scarcity for the central reference scenario

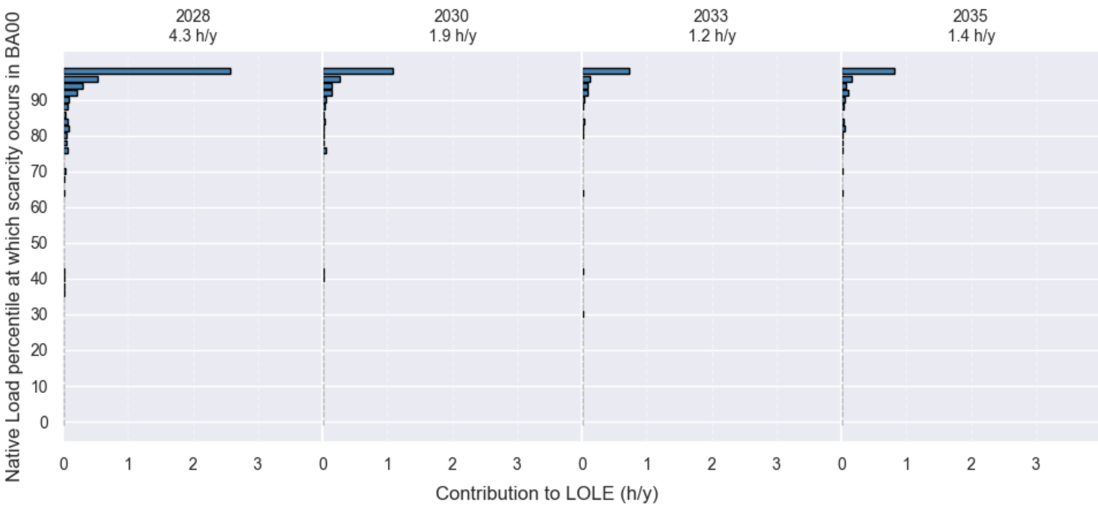


6.3 Bosnia and Herzegovina

1. ENS events distribution for the central reference scenario

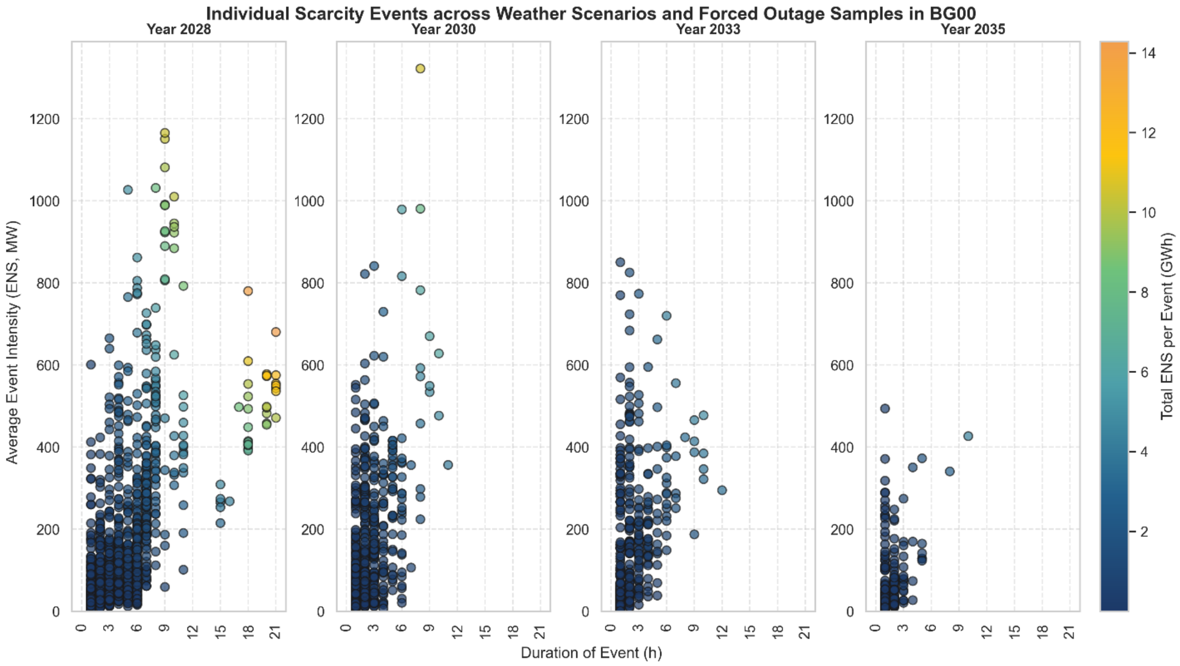


2. Native demand percentiles during scarcity for the central reference scenario

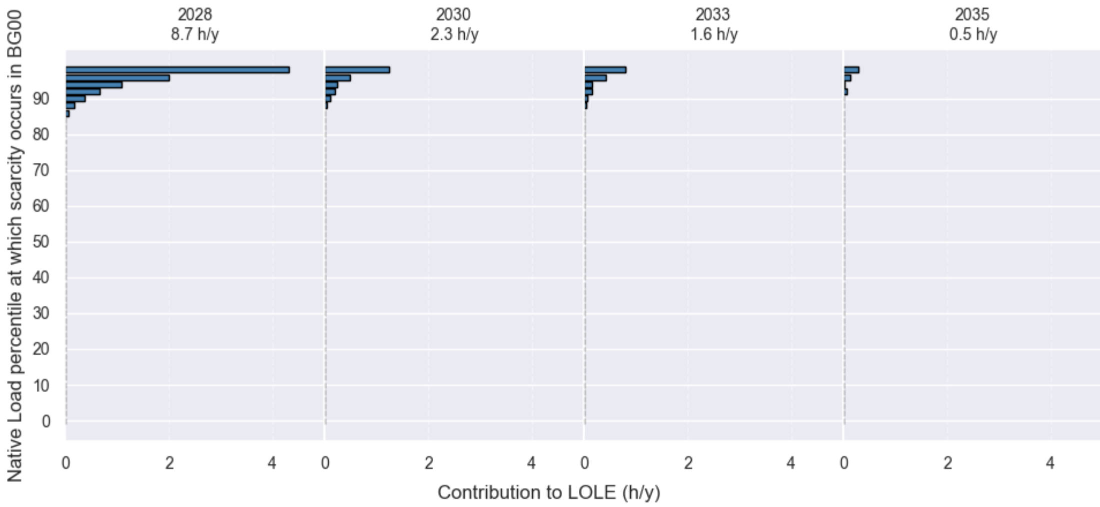


6.4 Bulgaria

1. ENS events distribution for the central reference scenario of risk aversion modelling

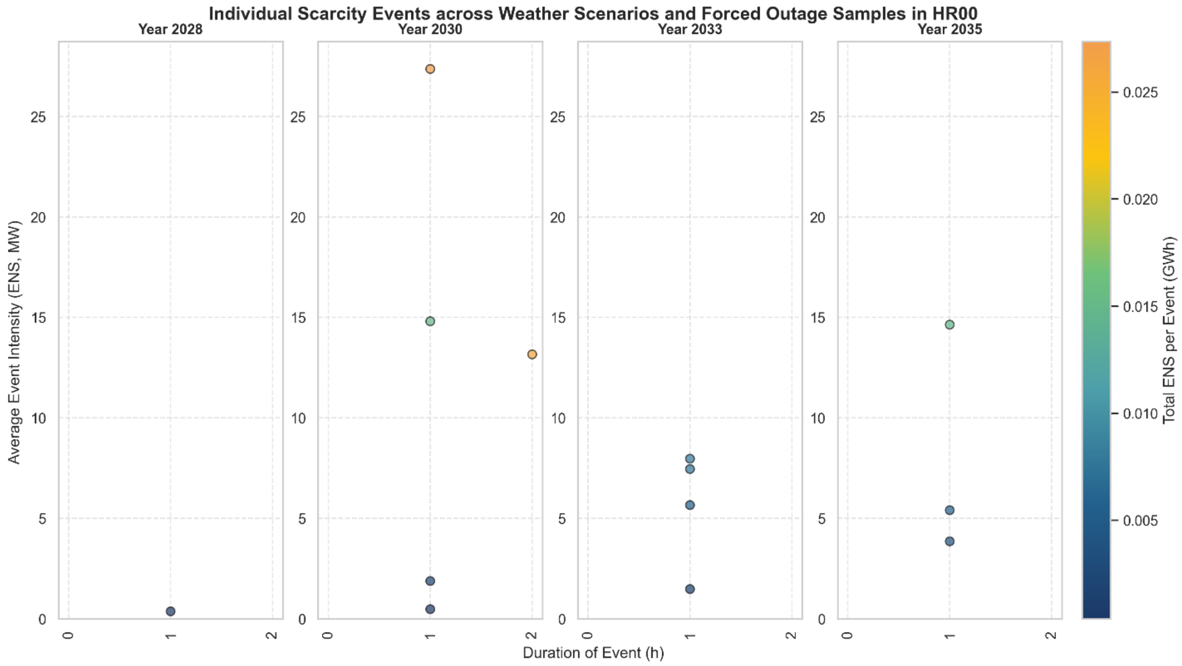


2. Native demand percentiles during scarcity for the central reference scenario

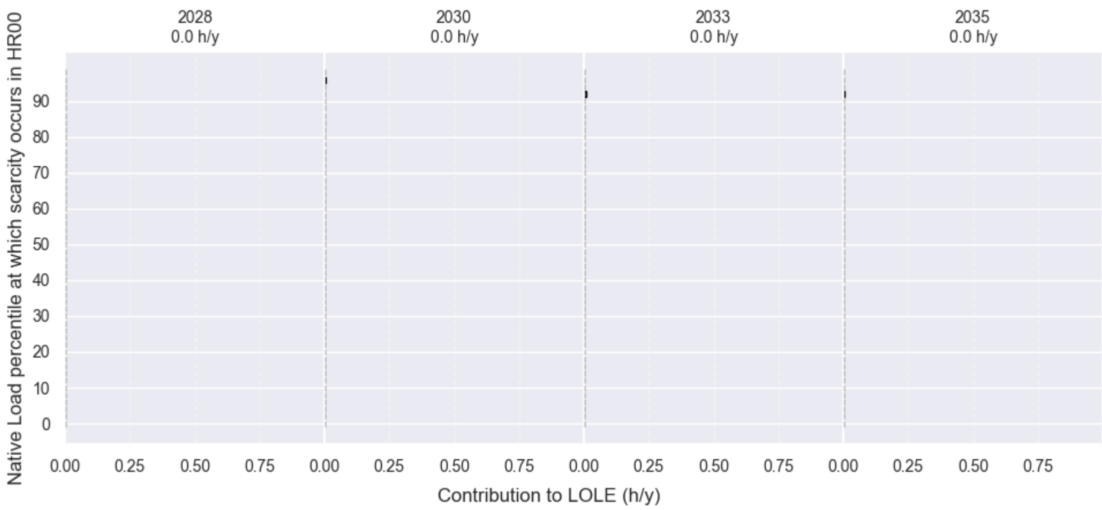


6.5 Croatia

1. ENS events distribution for the central reference scenario

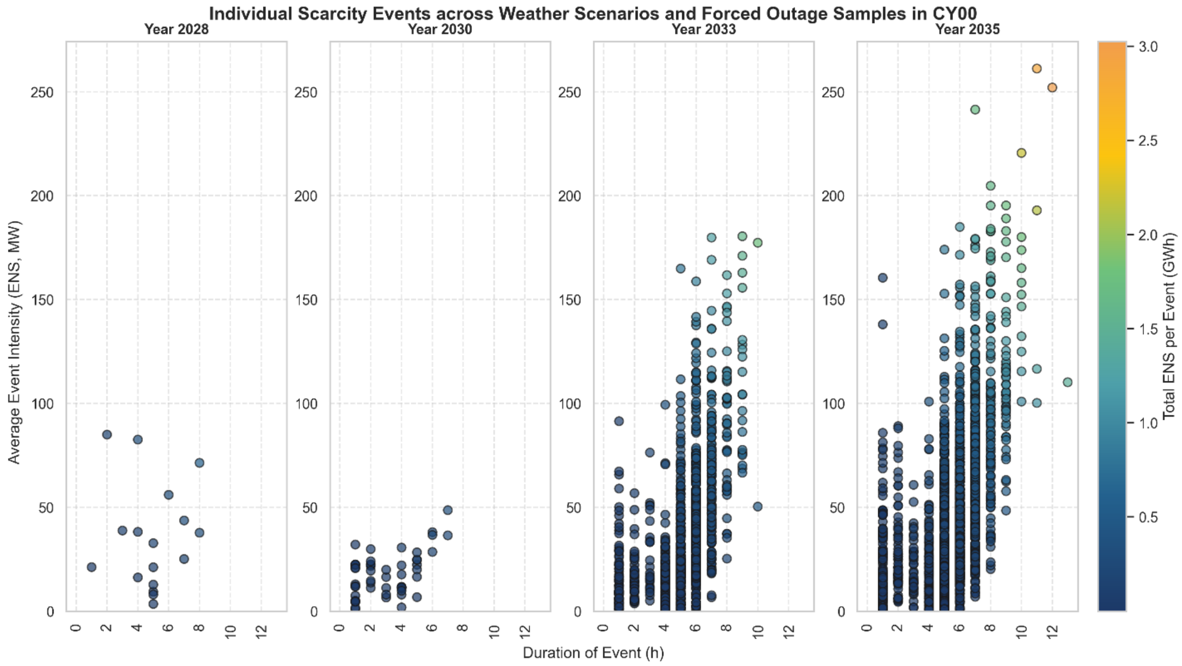


2. Native demand percentiles during scarcity for the central reference scenario

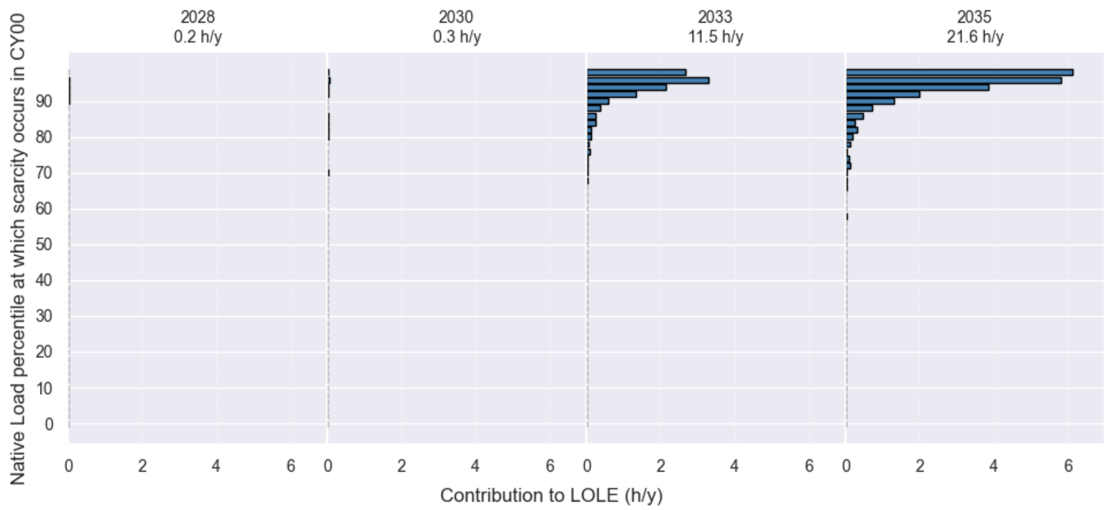


6.6 Cyprus

1. ENS events distribution for the central reference scenario

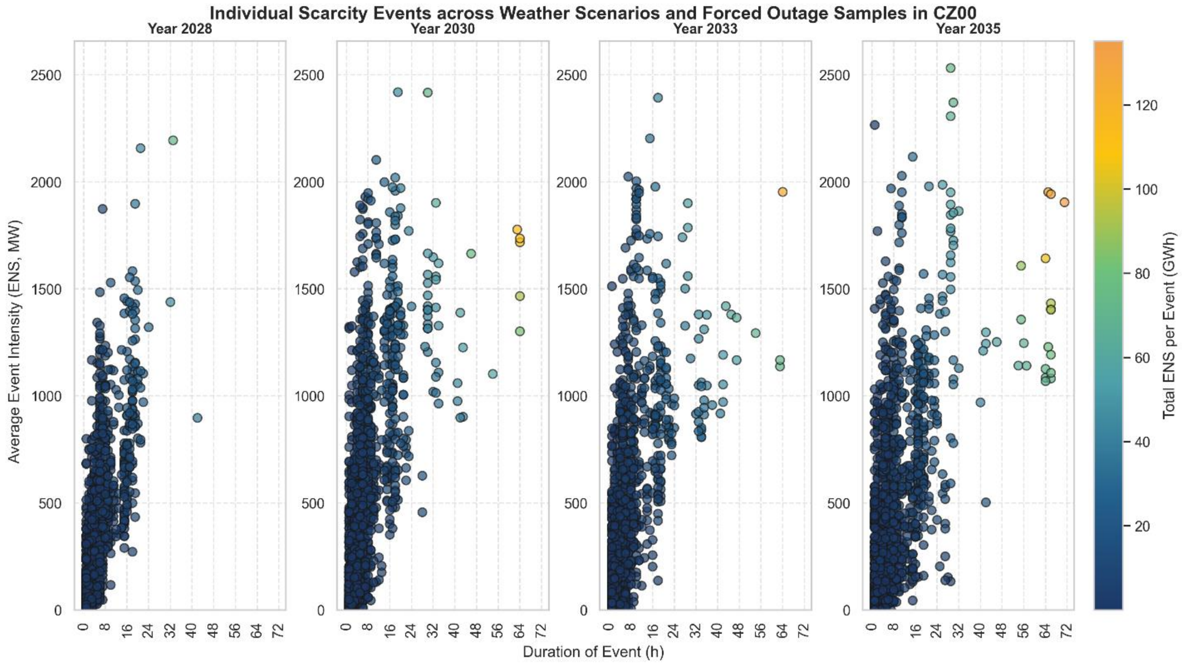


2. Native demand percentiles during scarcity for the central reference scenario

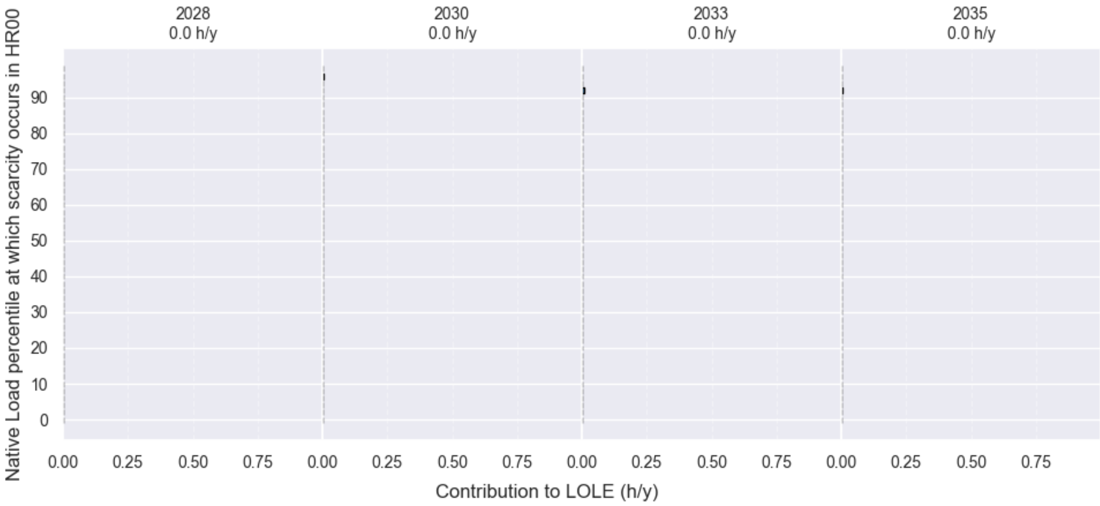


6.7 Czech Republic

1. ENS events distribution for the central reference scenario



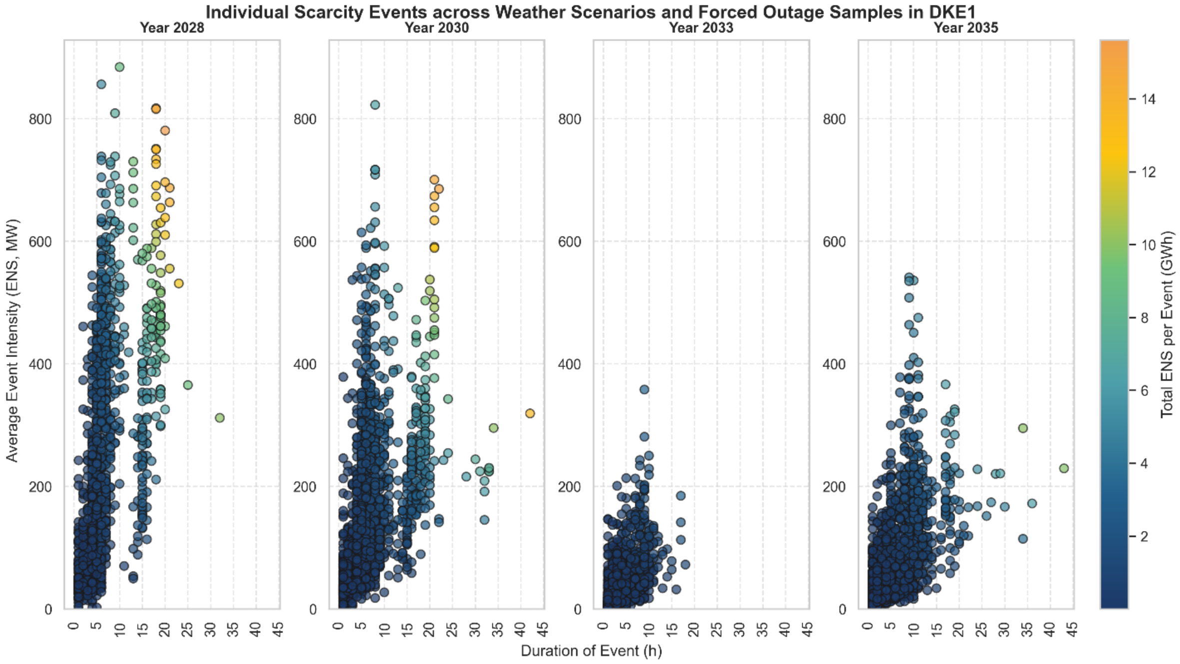
2. Native demand percentiles during scarcity for the central reference scenario



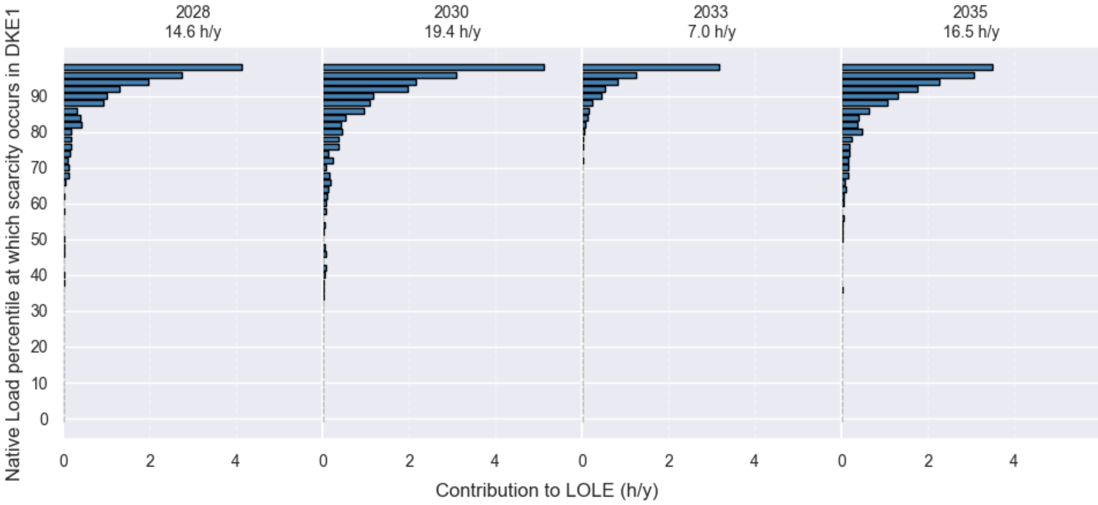
6.8 Denmark

6.8.1 DKE1

1. ENS events distribution for the central reference scenario

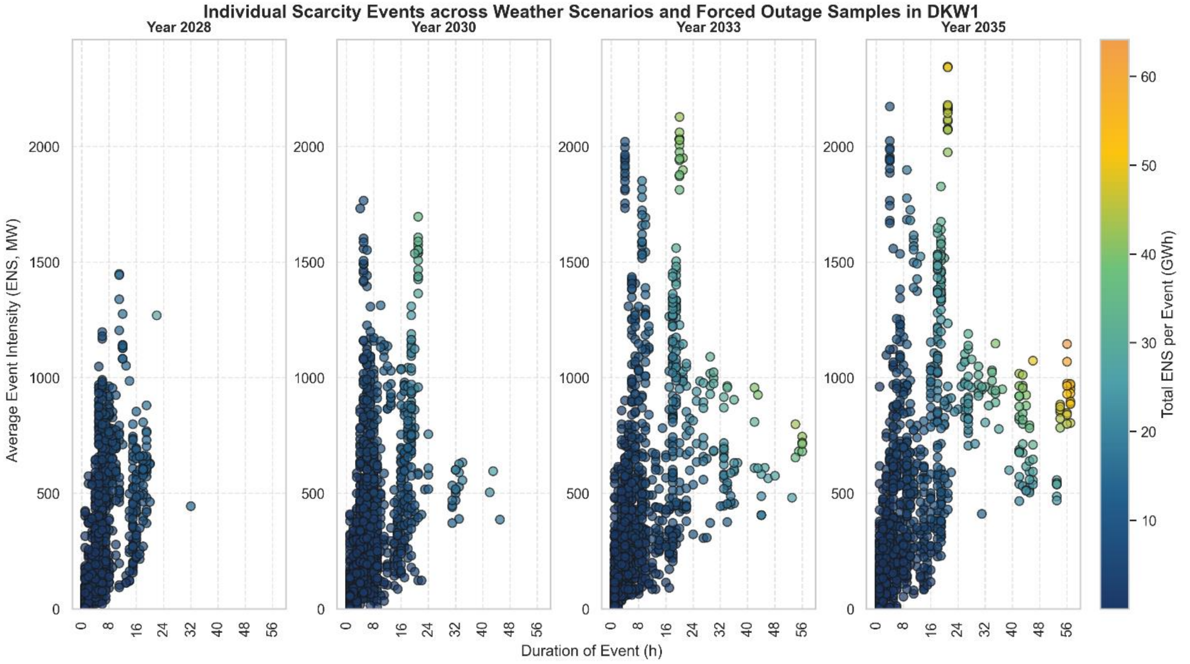


2. Native demand percentiles during scarcity for the central reference scenario

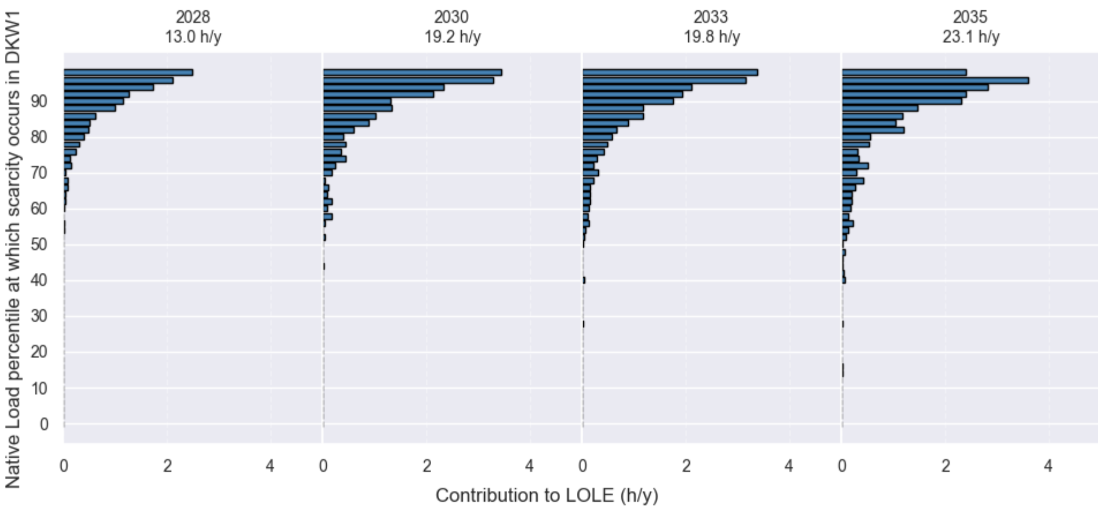


6.8.2 DKW1

1. ENS events distribution for the central reference scenario

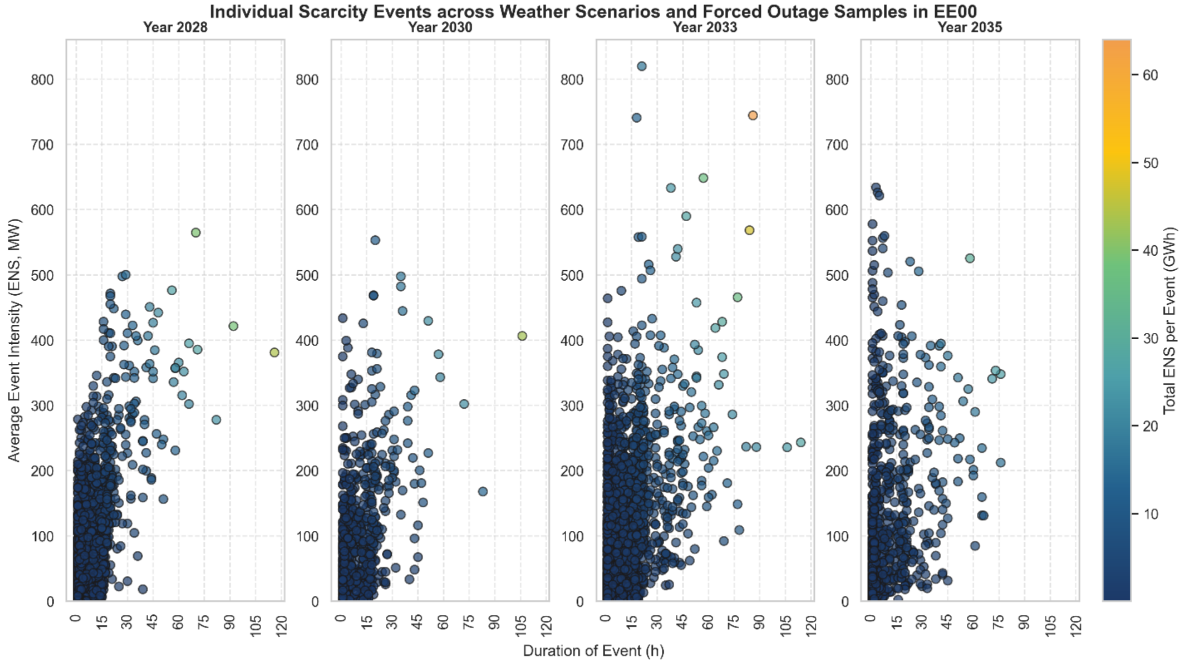


2. Native demand percentiles during scarcity for the central reference scenario

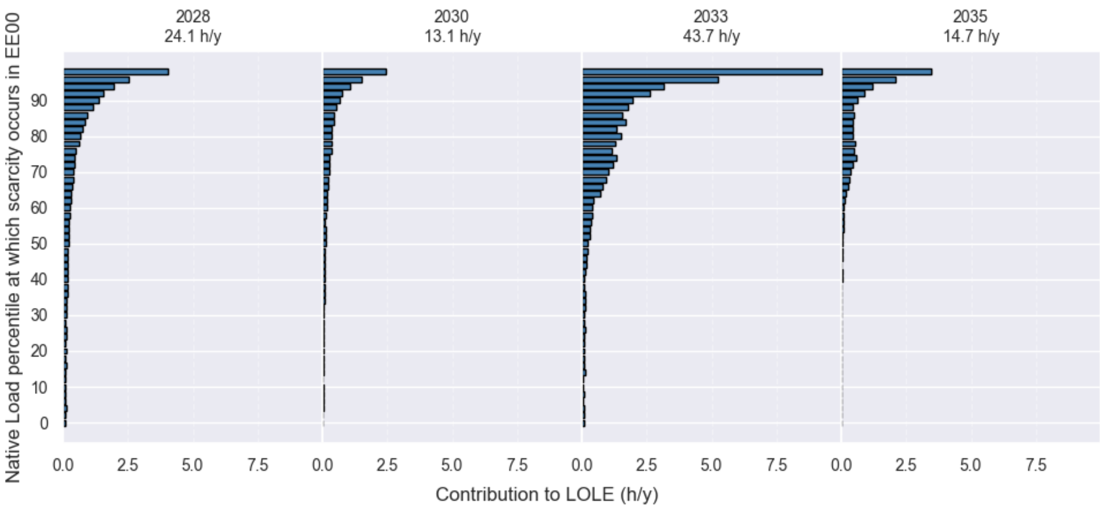


6.9 Estonia

1. ENS events distribution for the central reference scenario

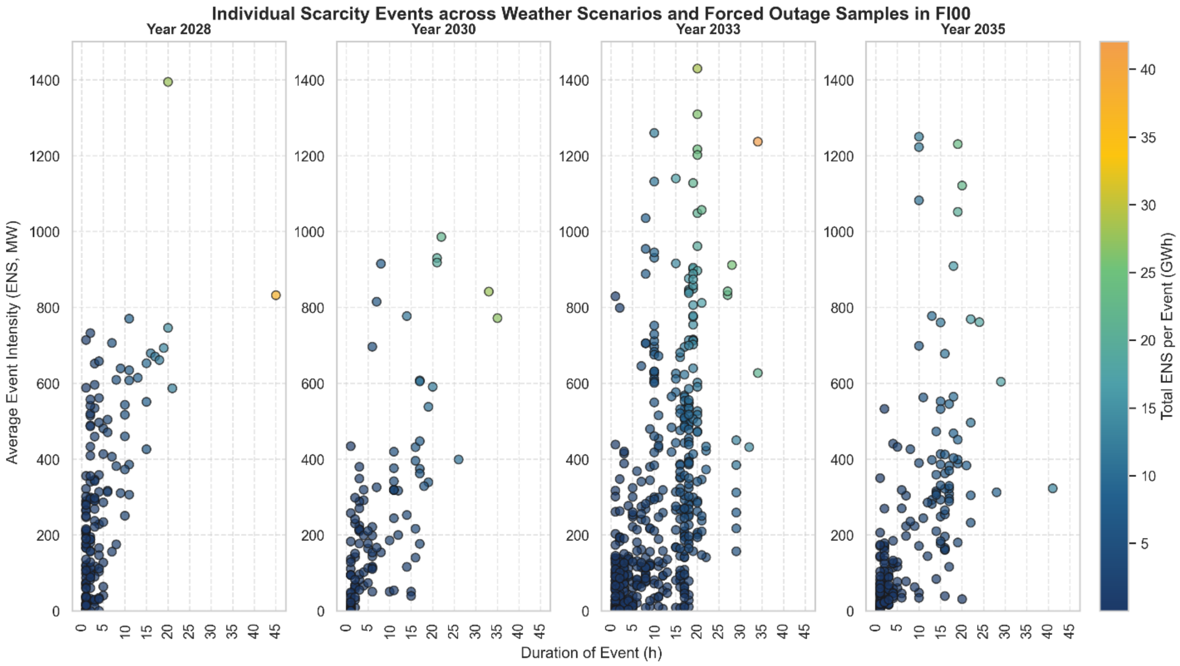


2. Native demand percentiles during scarcity for the central reference scenario

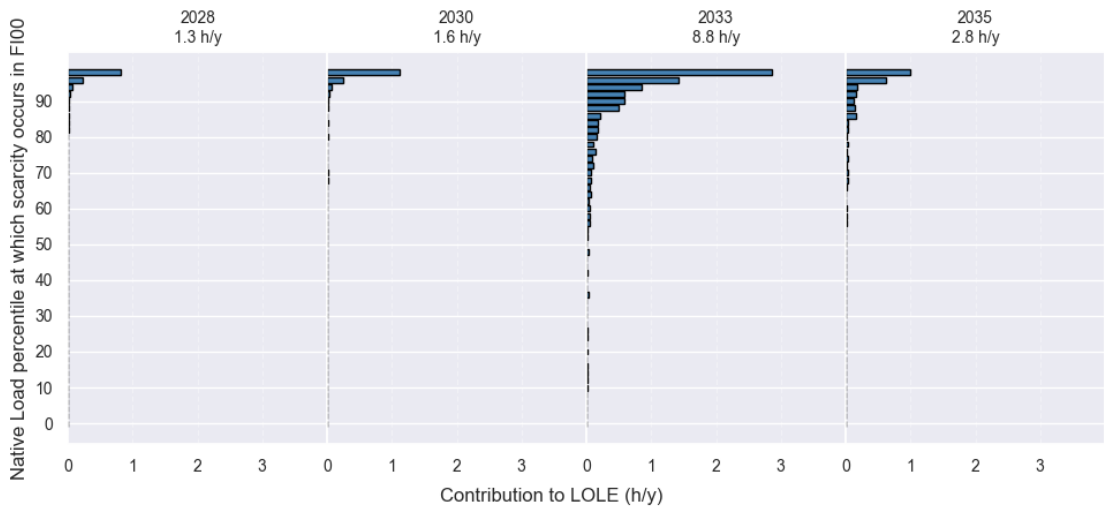


6.10 Finland

1. ENS events distribution for the central reference scenario

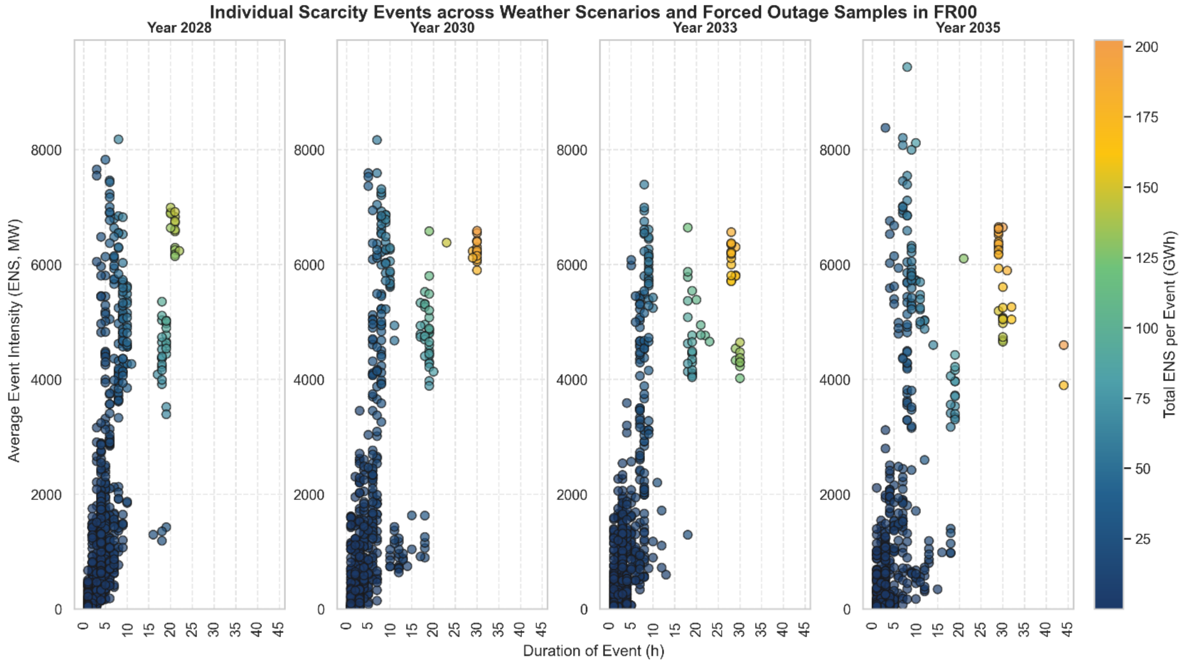


2. Native demand percentiles during scarcity for the central reference scenario

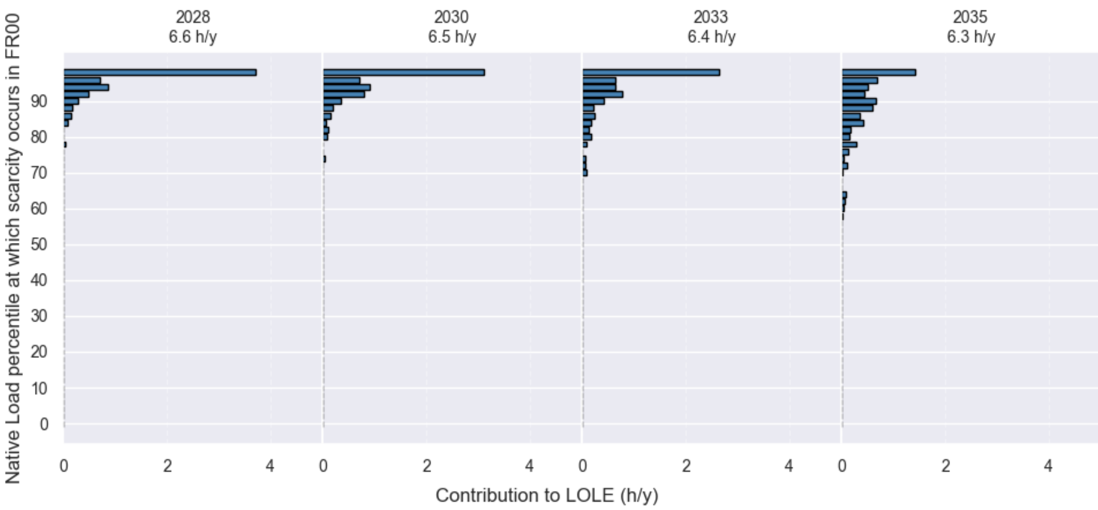


6.11 France

1. ENS events distribution for the central reference scenario

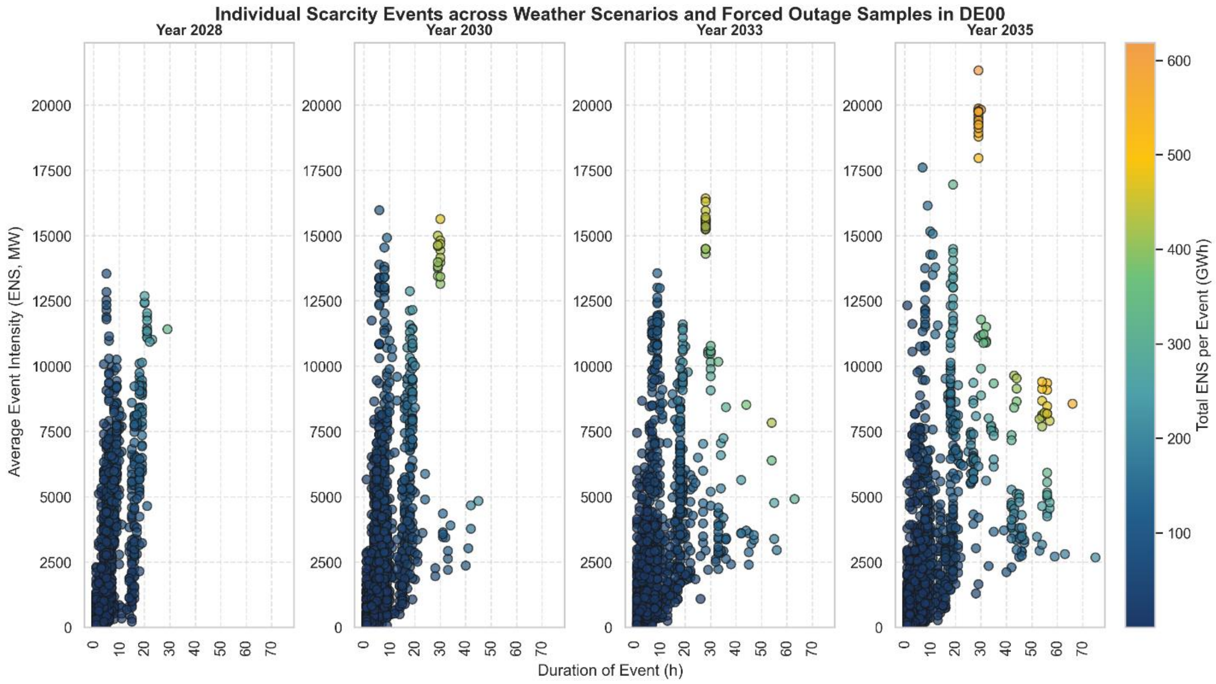


2. Native demand percentiles during scarcity for the central reference scenario

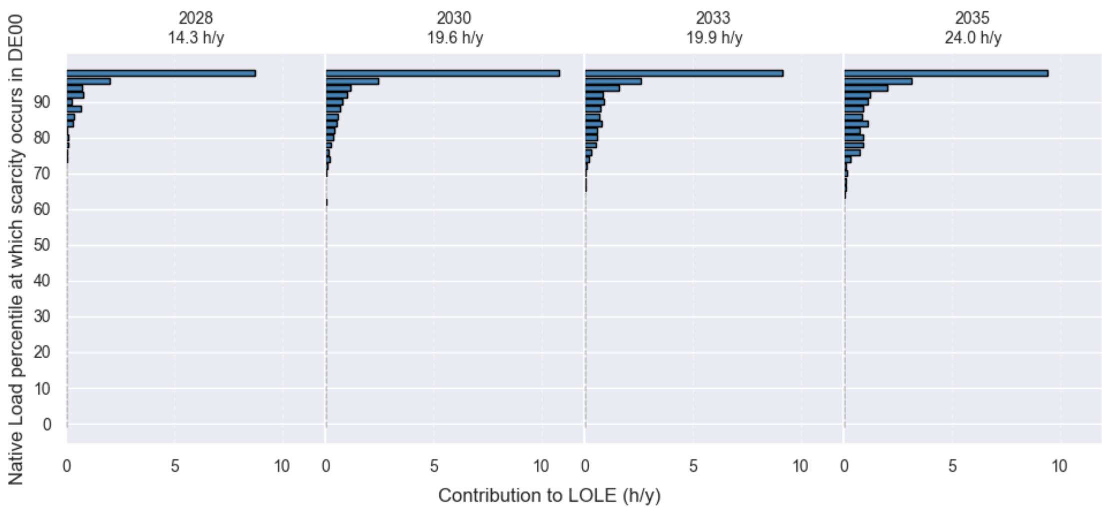


6.12 Germany

1. ENS events distribution for the central reference scenario



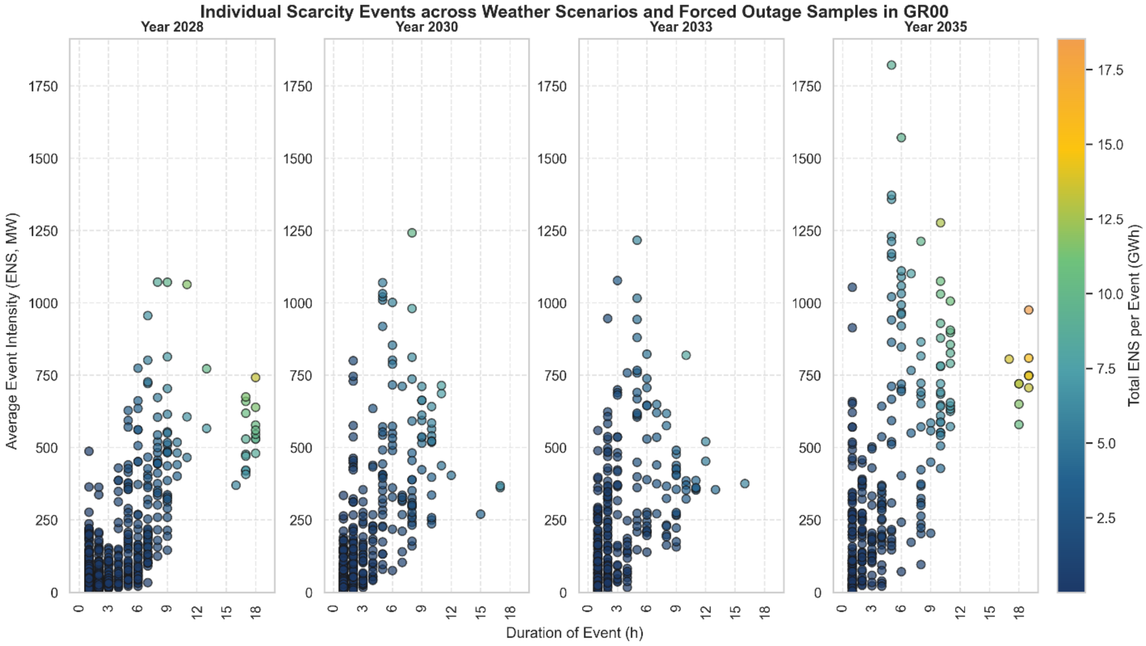
2. Native demand percentiles during scarcity for the central reference scenario



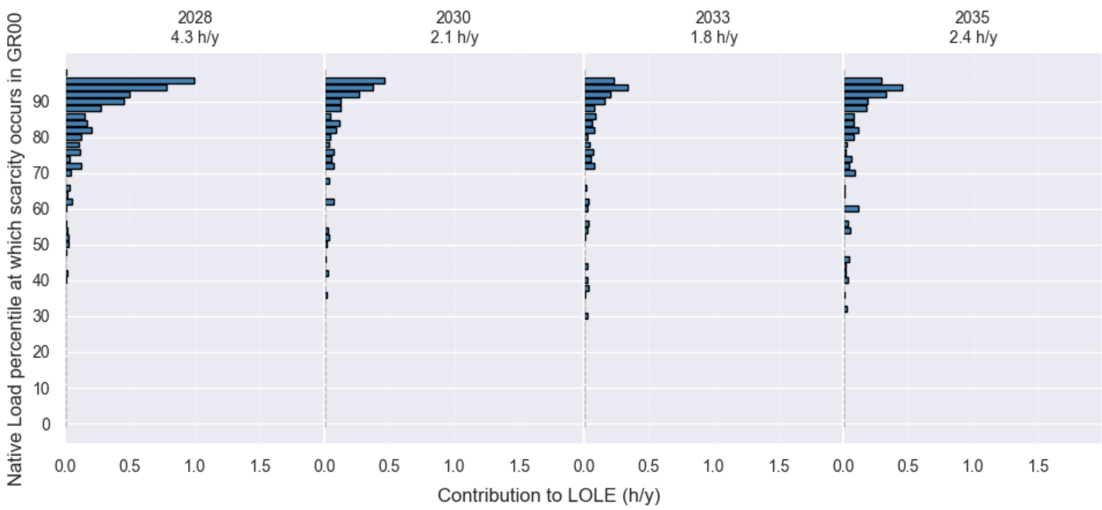
6.13 Greece

6.13.1 GR00

1. ENS events distribution for the central reference scenario

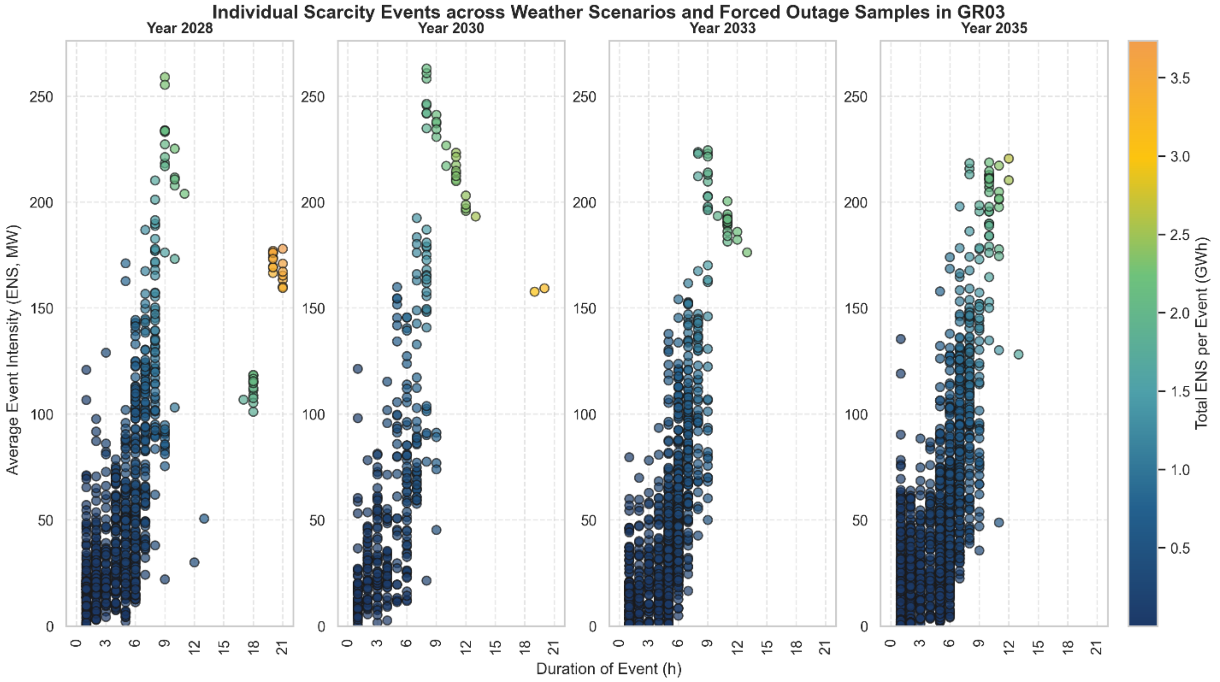


2. Native demand percentiles during scarcity for the central reference scenario

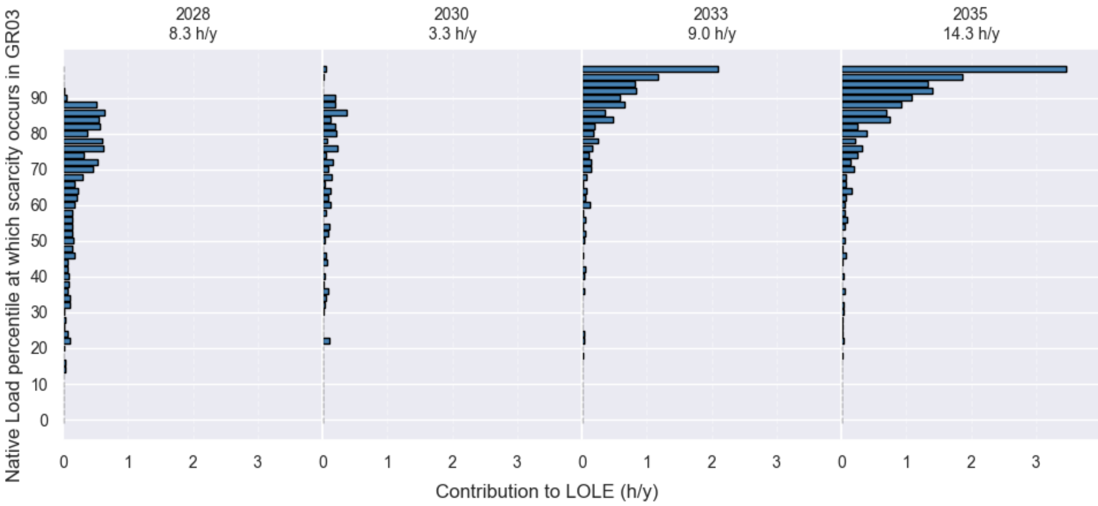


6.13.2 GR03

1. ENS events distribution for the central reference scenario

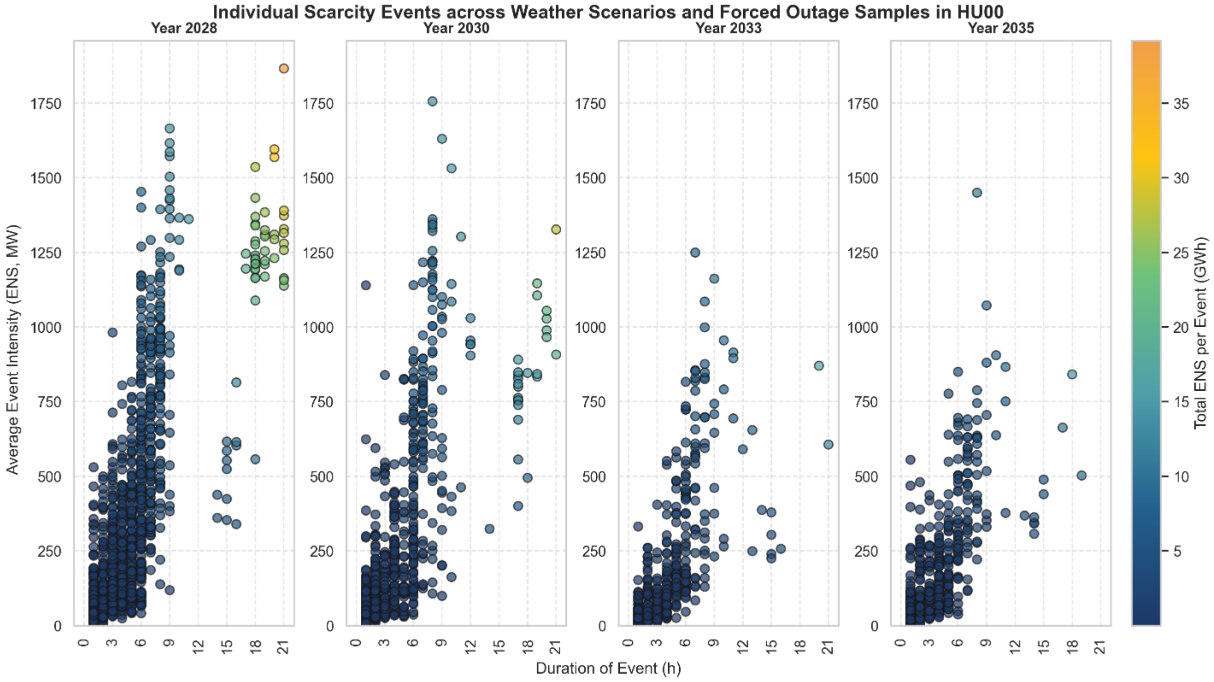


2. Native demand percentiles during scarcity for the central reference scenario

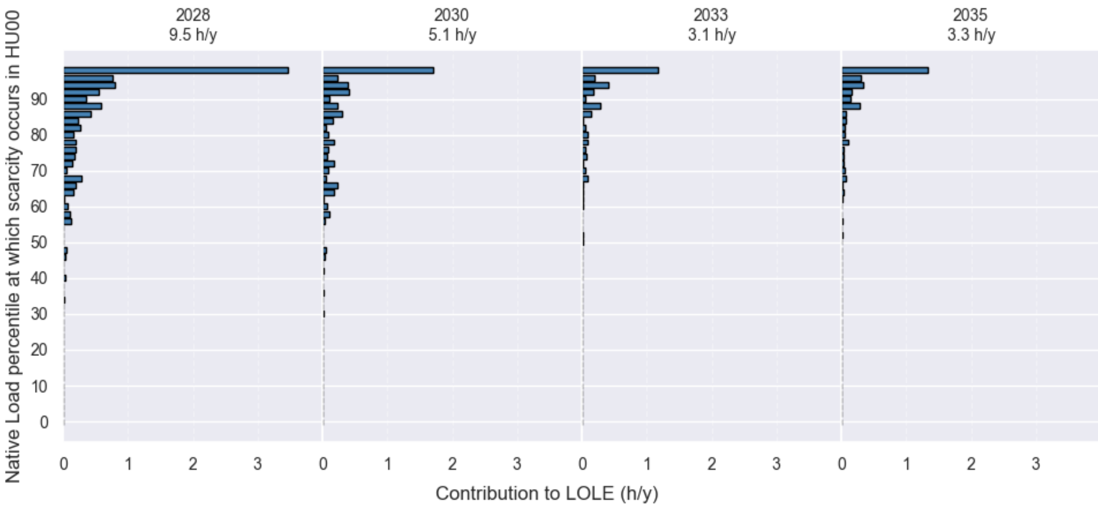


6.14 Hungary

1. ENS events distribution for the central reference scenario

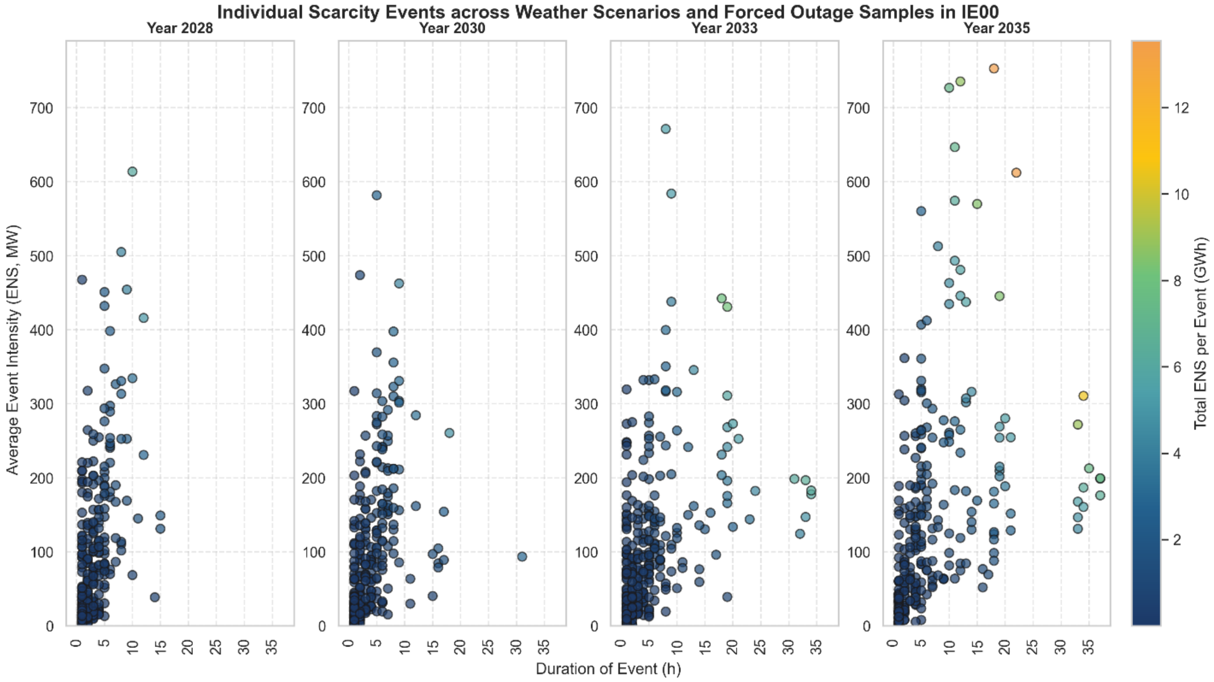


2. Native demand percentiles during scarcity for the central reference scenario

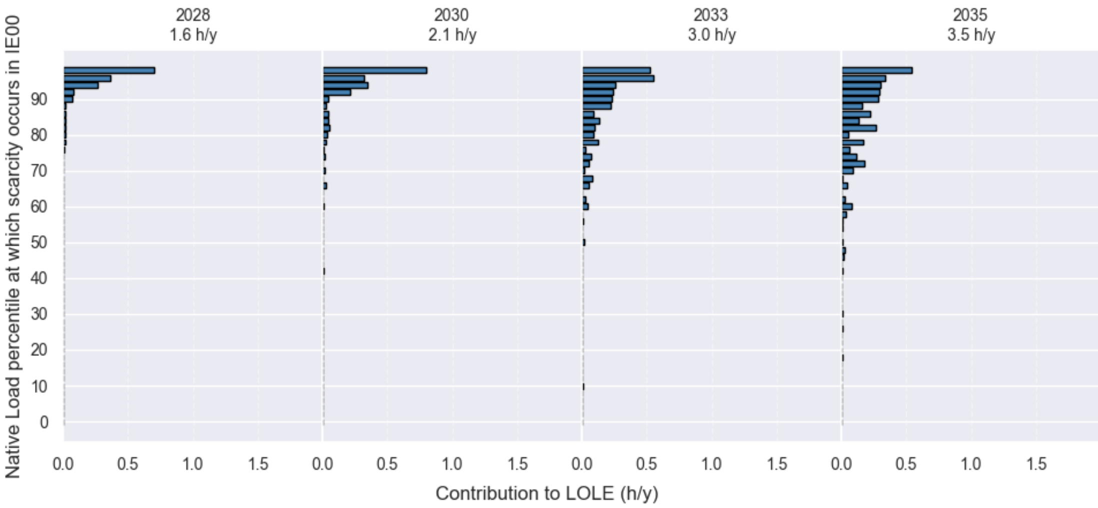


6.15 Ireland

1. ENS events distribution for the central reference scenario



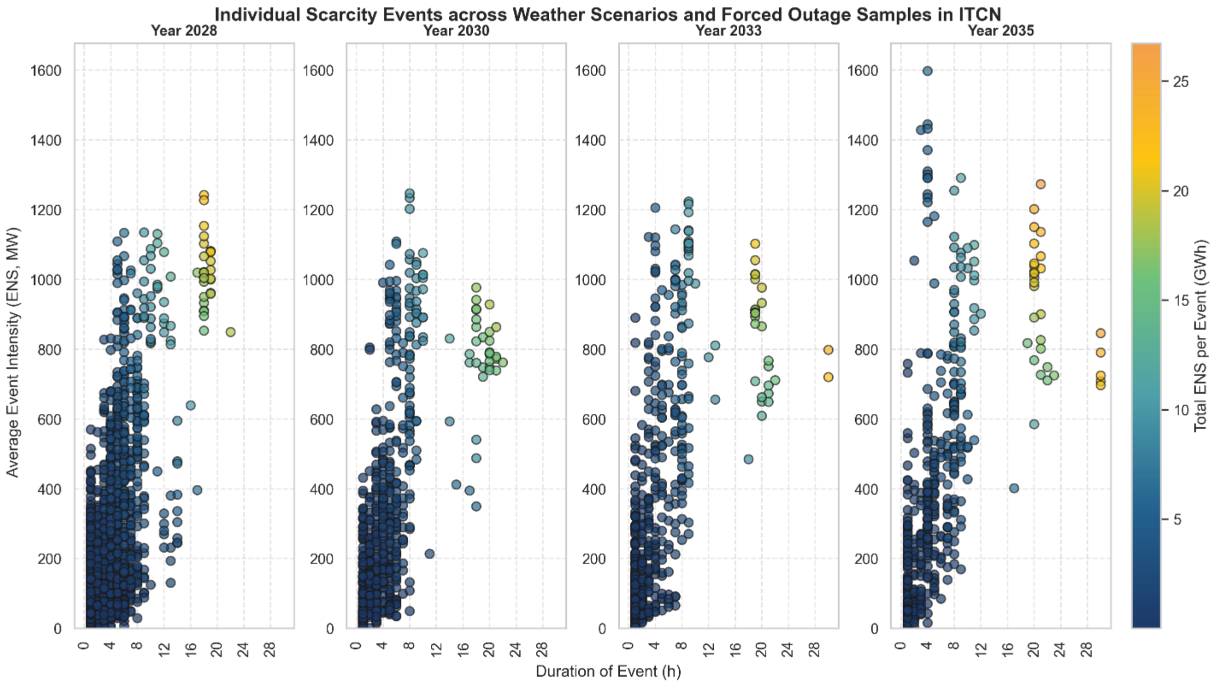
2. Native demand percentiles during scarcity for the central reference scenario



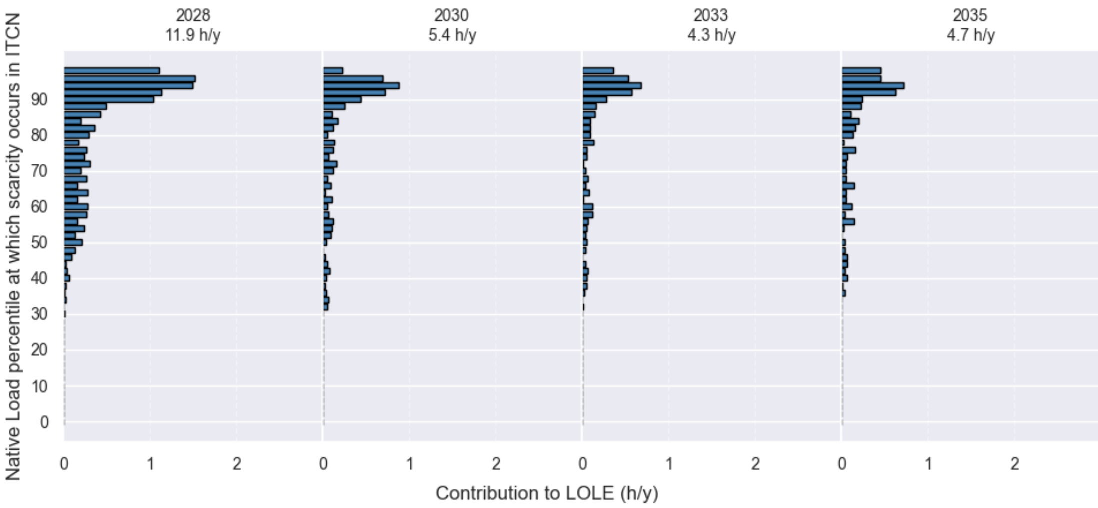
6.16 Italy

6.16.1 ITCN

1. ENS events distribution for the central reference scenario

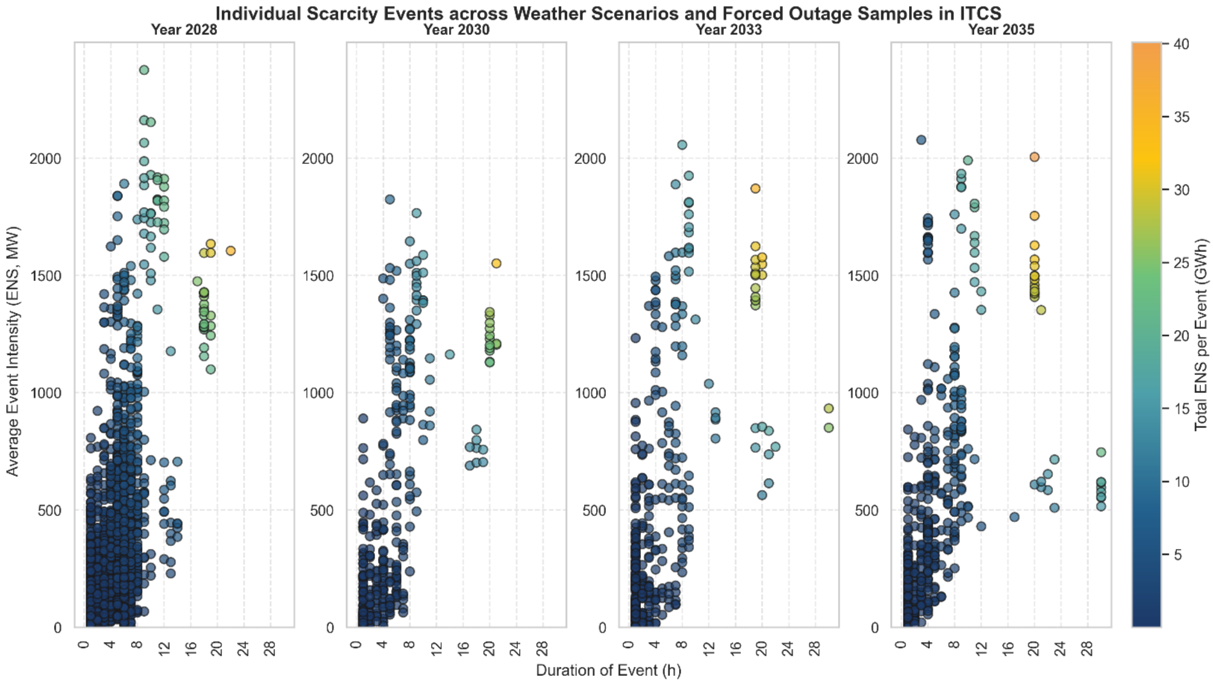


2. Native demand percentiles during scarcity for the central reference scenario

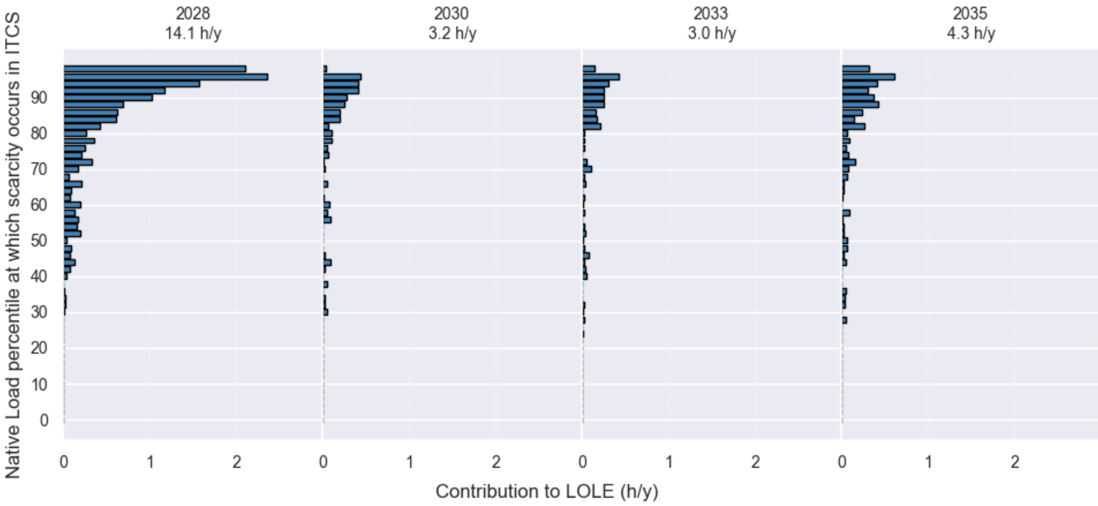


6.16.2 ITCS

1. ENS events distribution for the central reference scenario

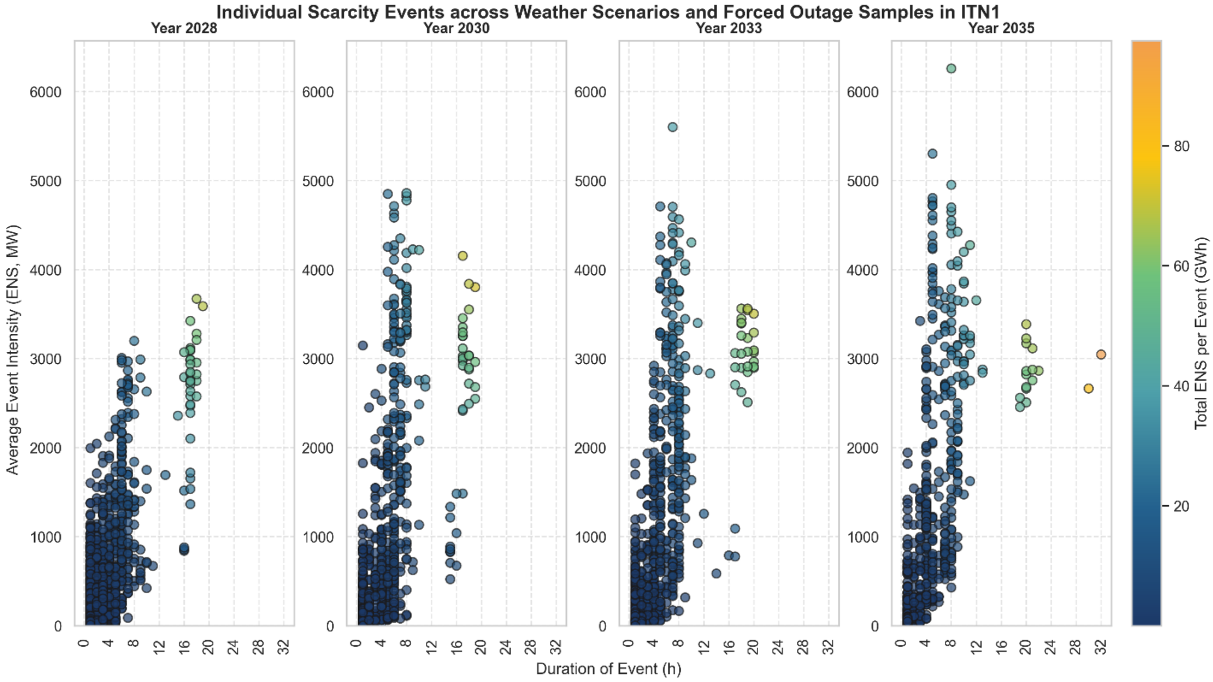


2. Native demand percentiles during scarcity for the central reference scenario

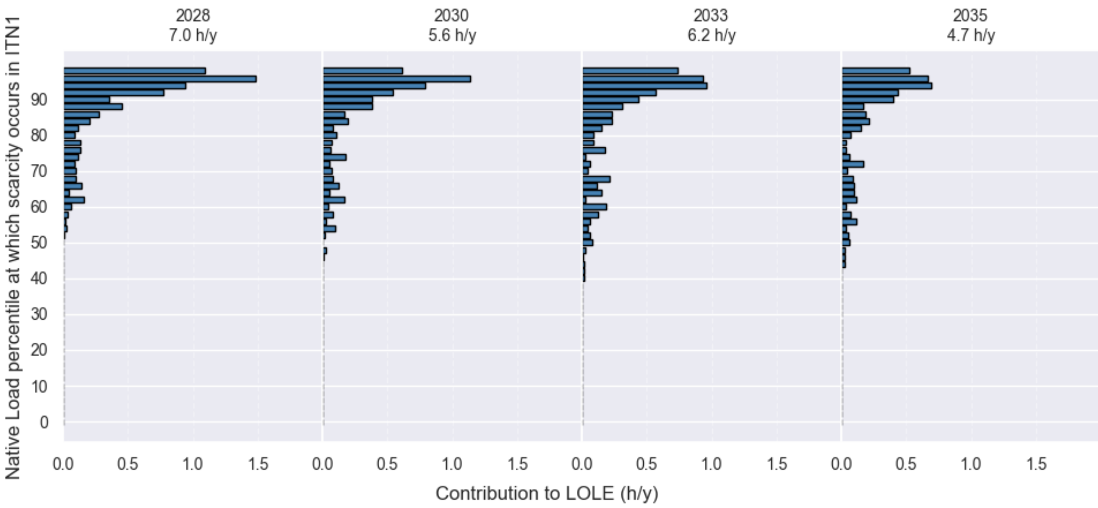


6.16.3 ITN1

1. ENS events distribution for the central reference scenario

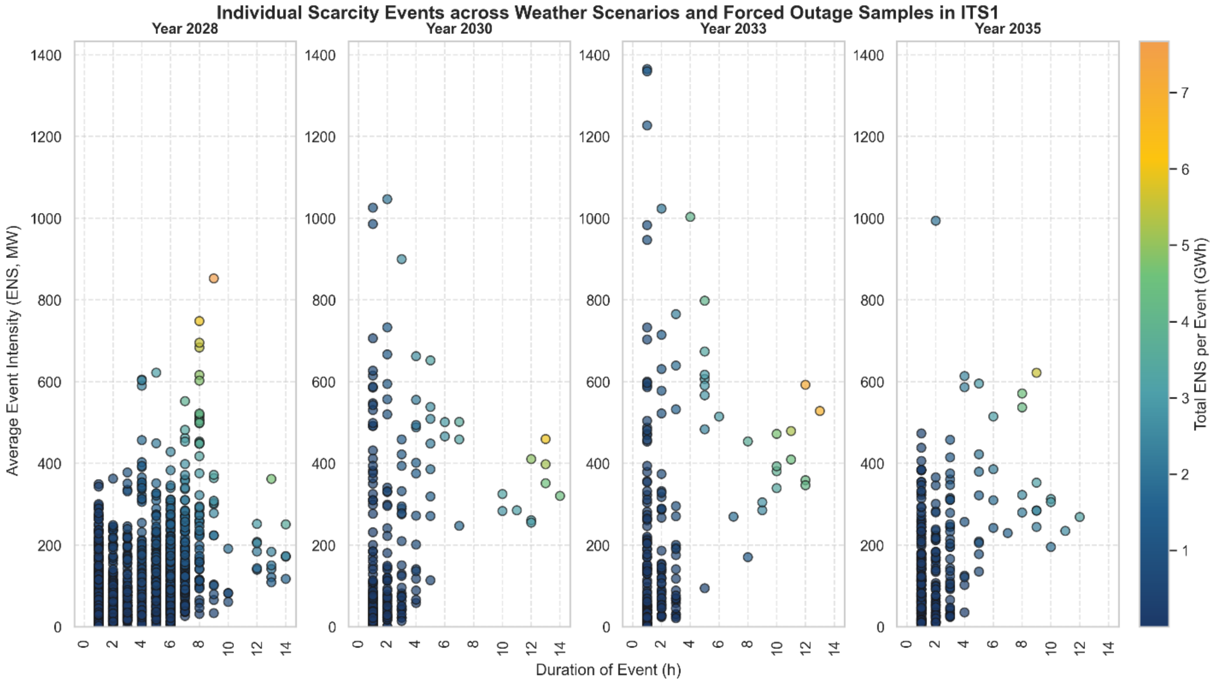


2. Native demand percentiles during scarcity for the central reference scenario

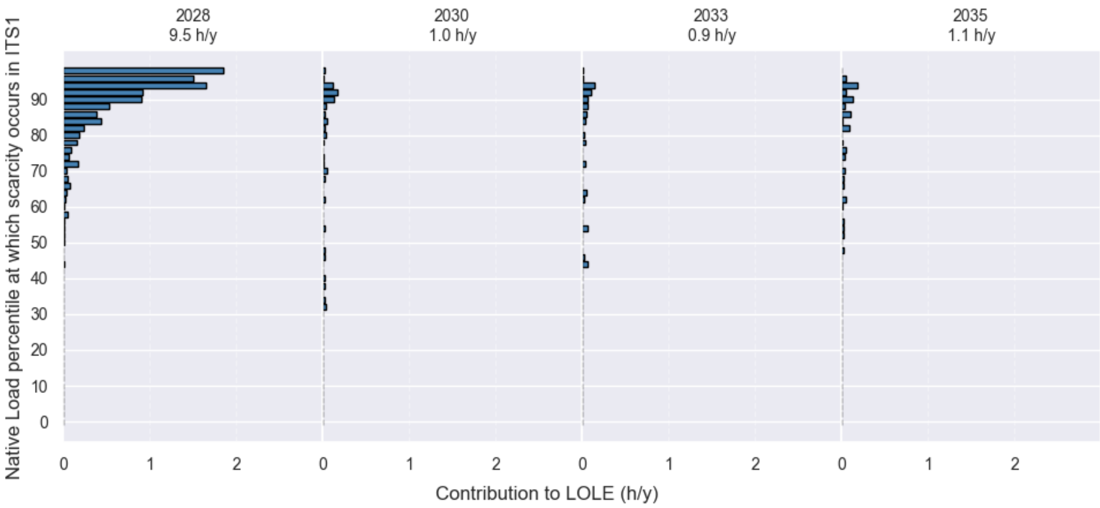


6.16.4 ITS1

1. ENS events distribution for the central reference scenario

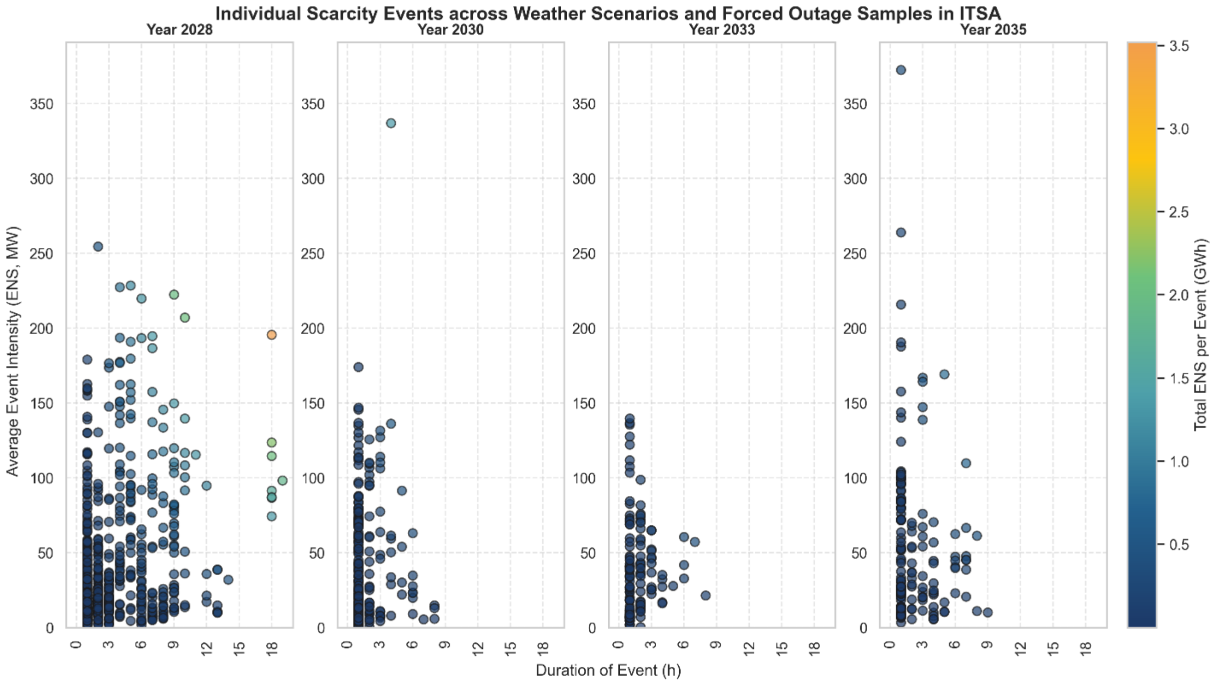


2. Native demand percentiles during scarcity for the central reference scenario

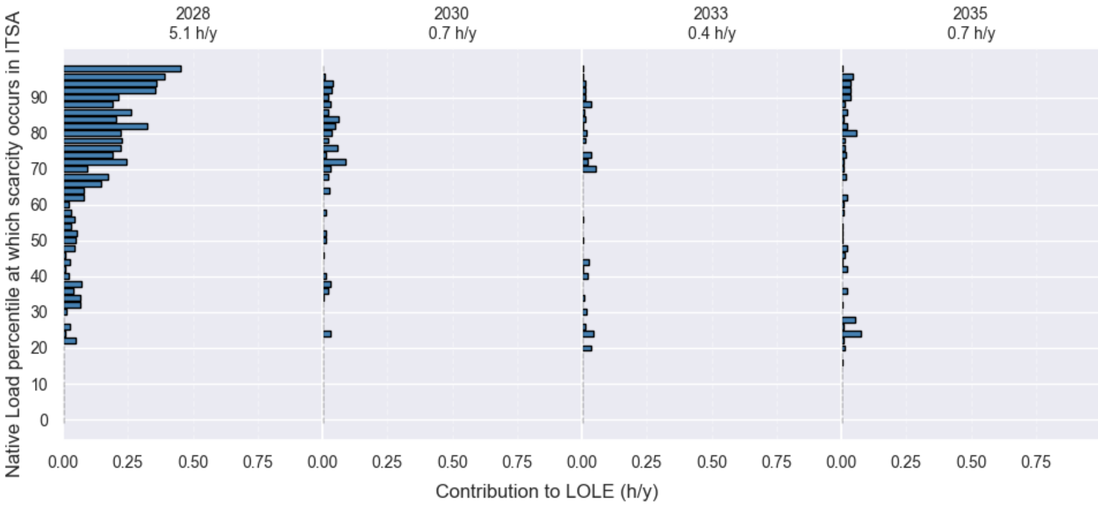


6.16.5 ITSA

1. ENS events distribution for the central reference scenario

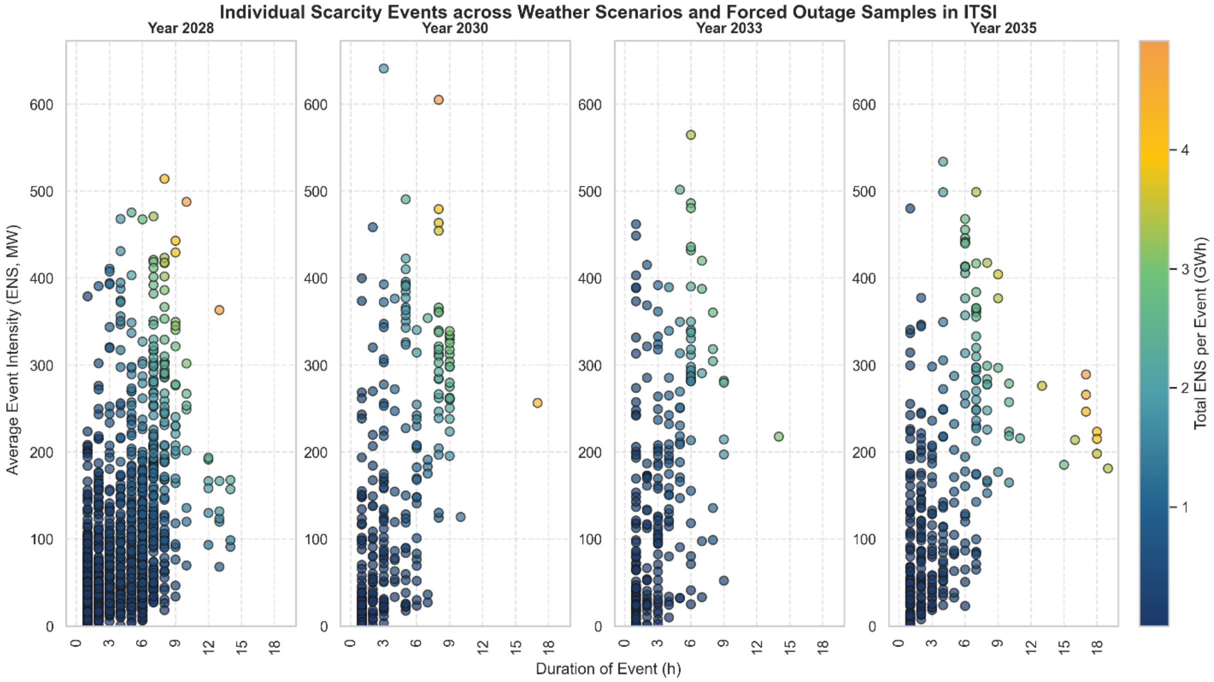


2. Native demand percentiles during scarcity for the central reference scenario

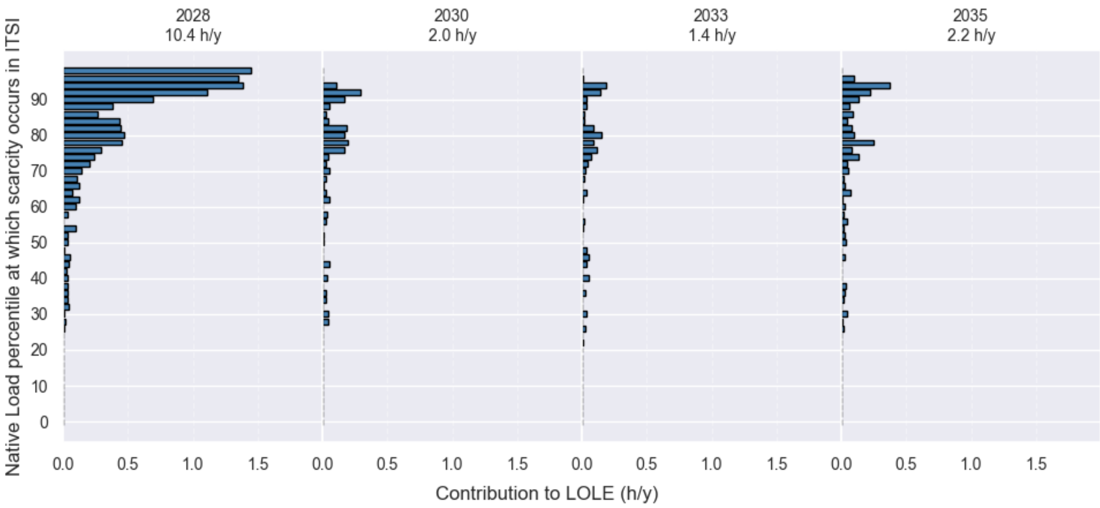


6.16.6 ITSI

1. ENS events distribution for the central reference scenario

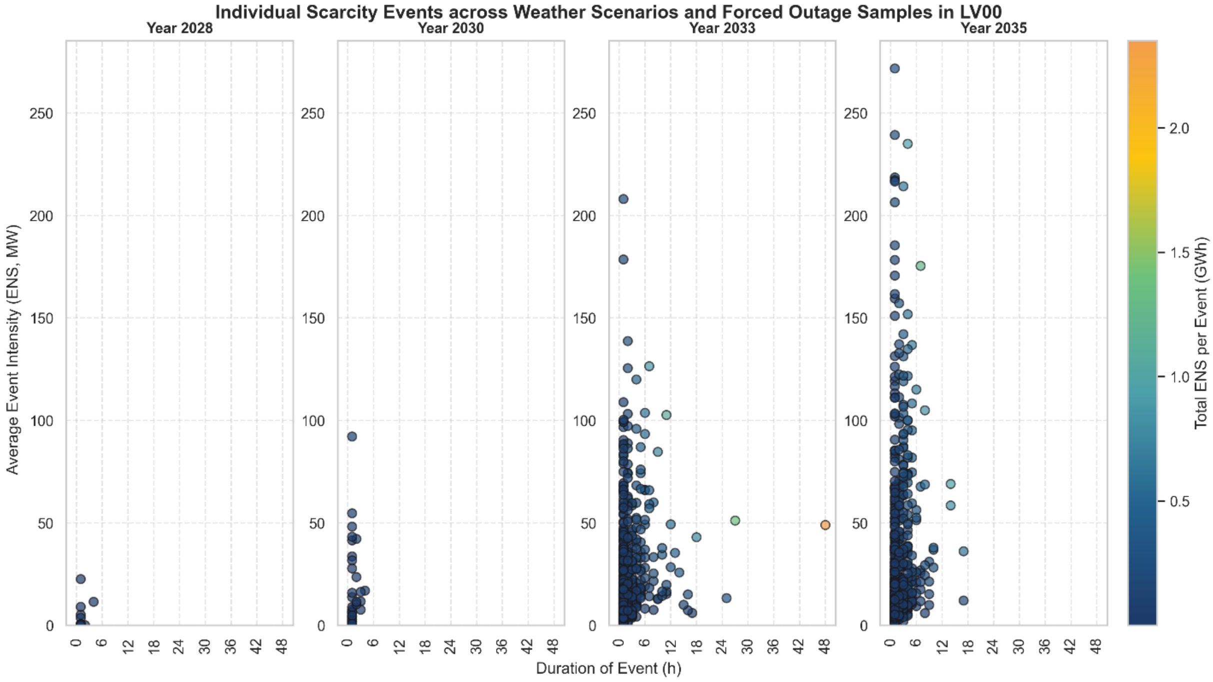


2. Native demand percentiles during scarcity for the central reference scenario

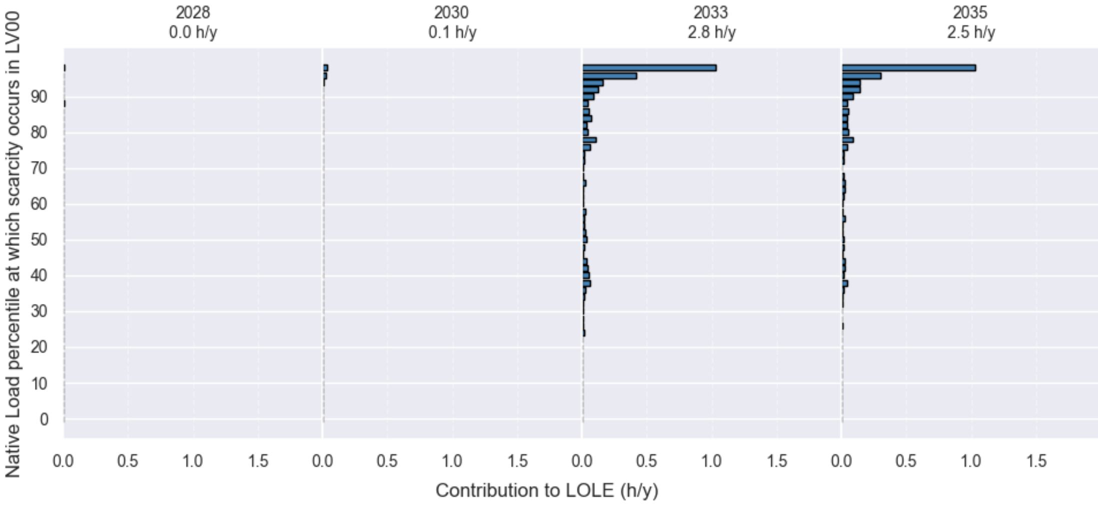


6.17 Latvia

1. ENS events distribution for the central reference scenario

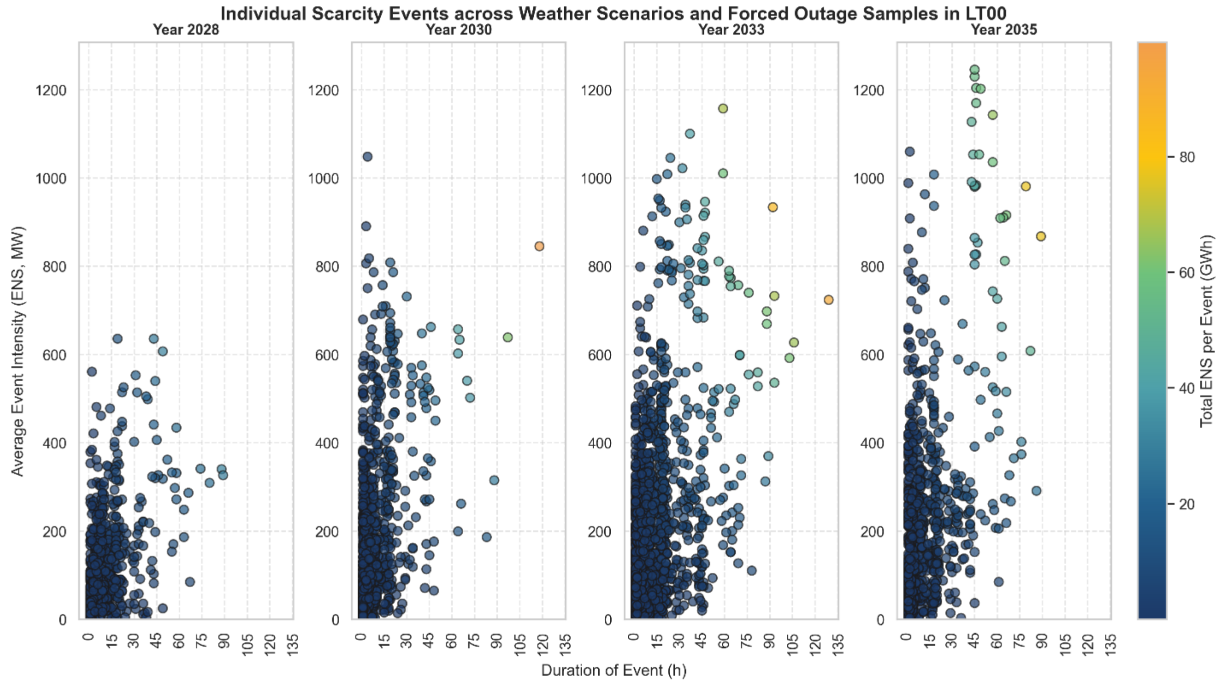


2. Native demand percentiles during scarcity of for the central reference scenario

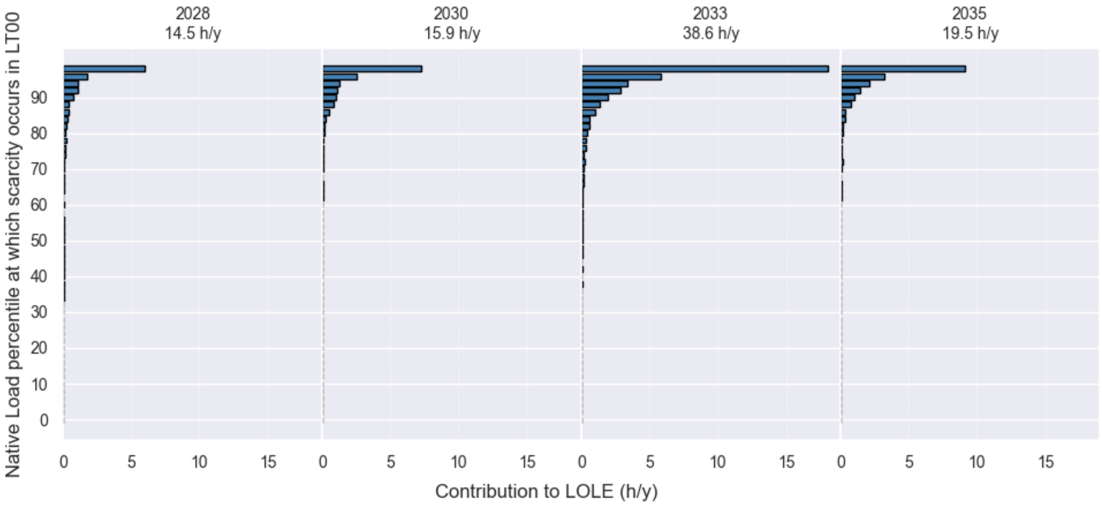


6.18 Lithuania

1. ENS events distribution for the central reference scenario

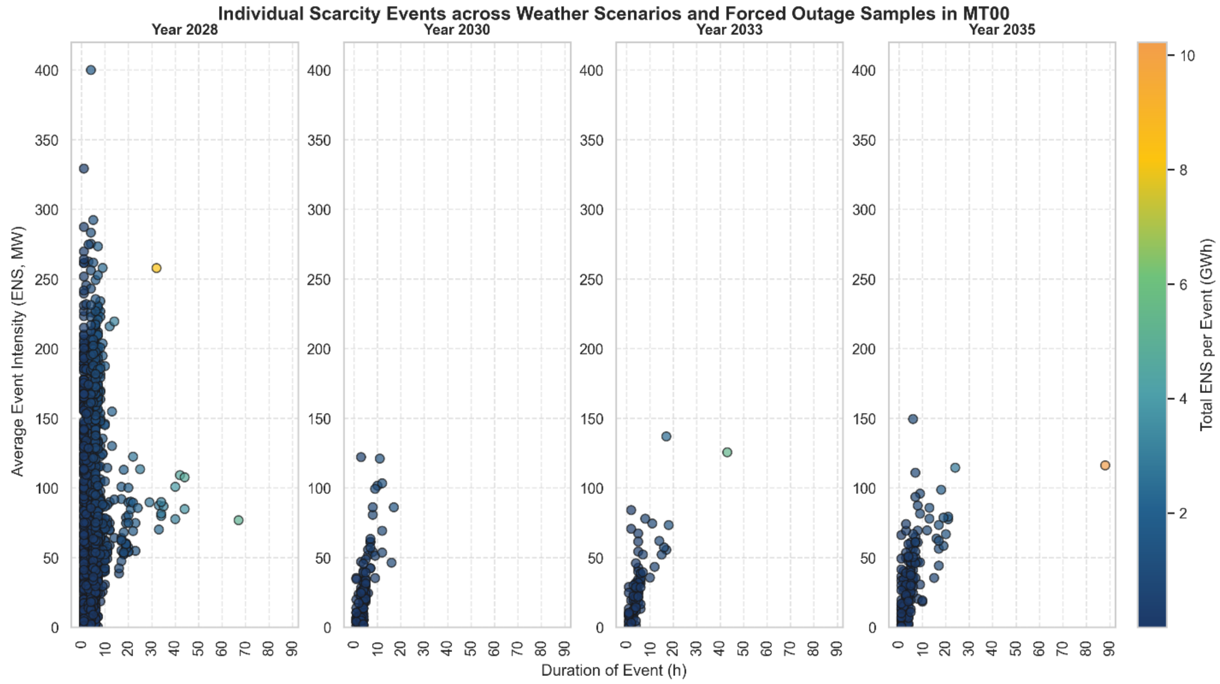


2. Native demand percentiles during scarcity for the central reference scenario

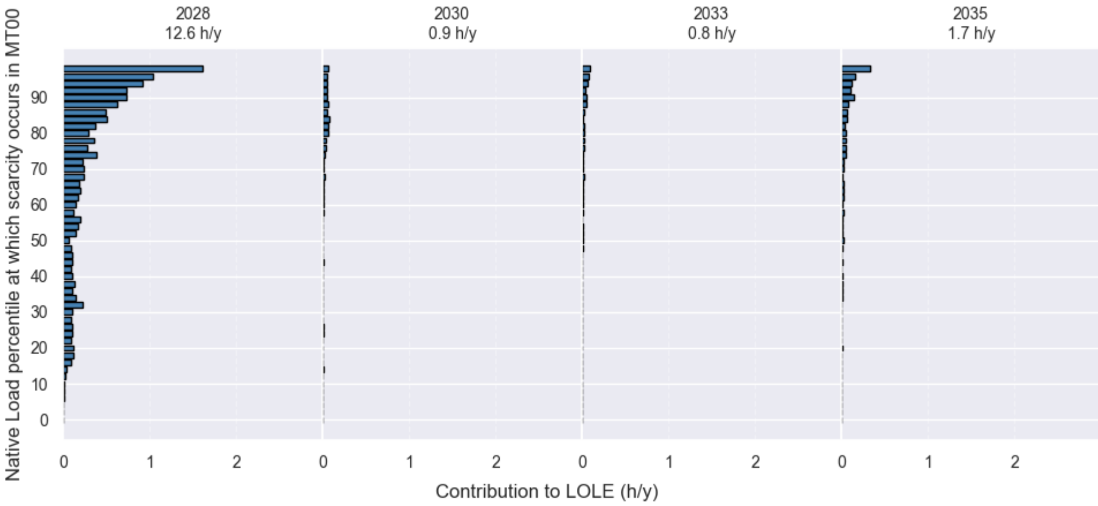


6.19 Malta

1. ENS events distribution for the central reference scenario

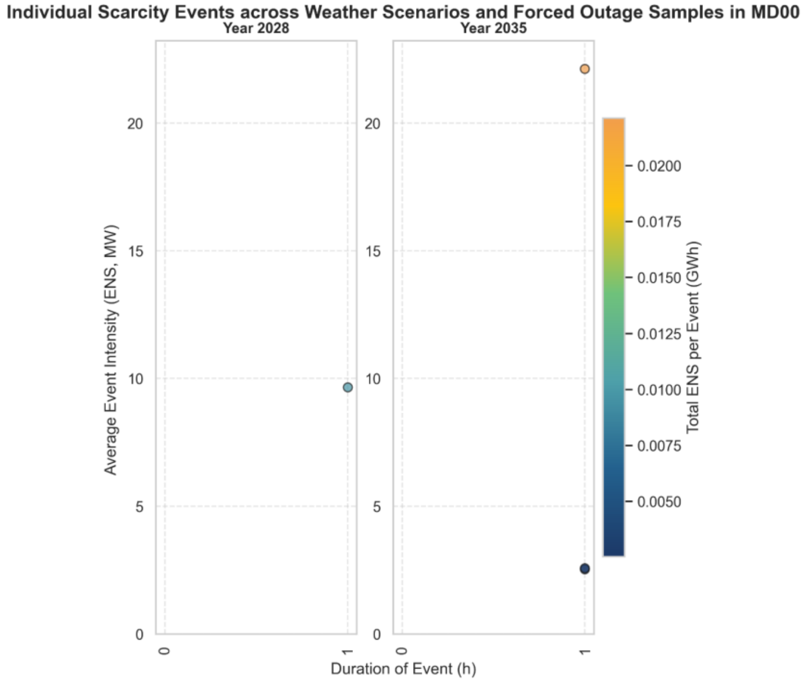


2. Native demand percentiles during scarcity for the central reference scenario

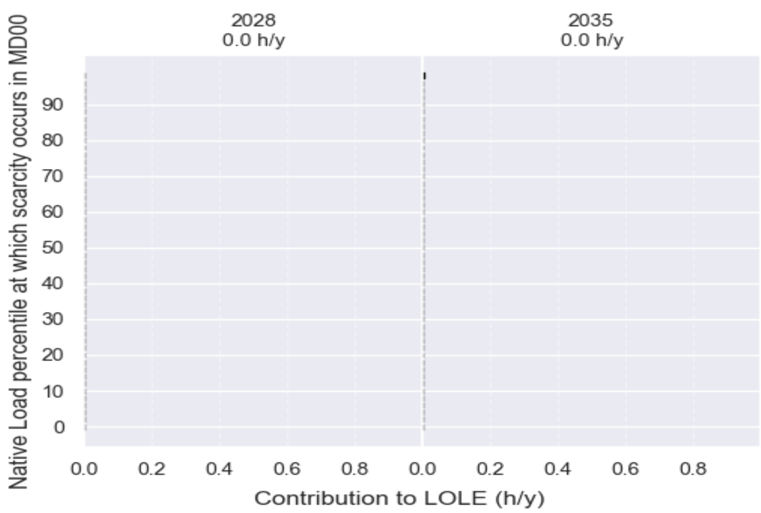


6.20 Moldova

1. ENS events distribution for the central reference scenario

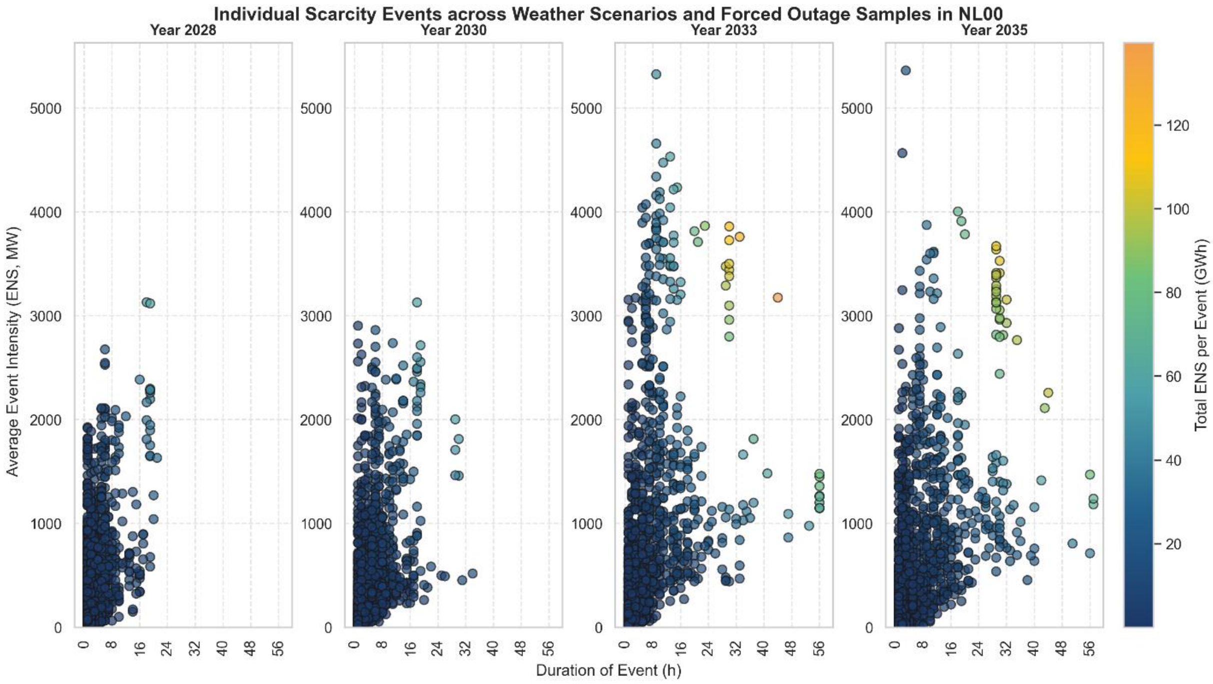


2. Native demand percentiles during scarcity for the central reference scenario

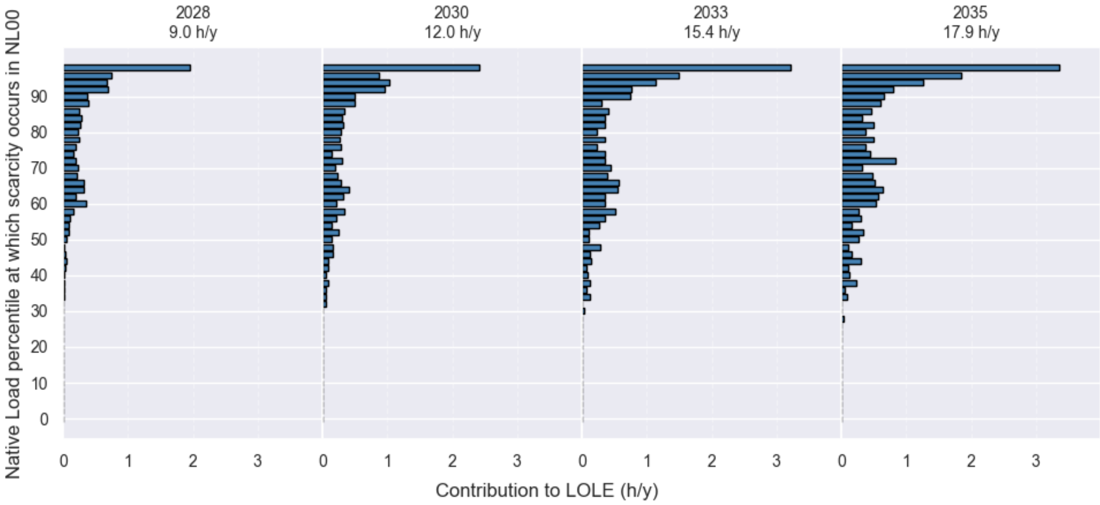


6.21 Netherlands

1. ENS events distribution for the central reference scenario

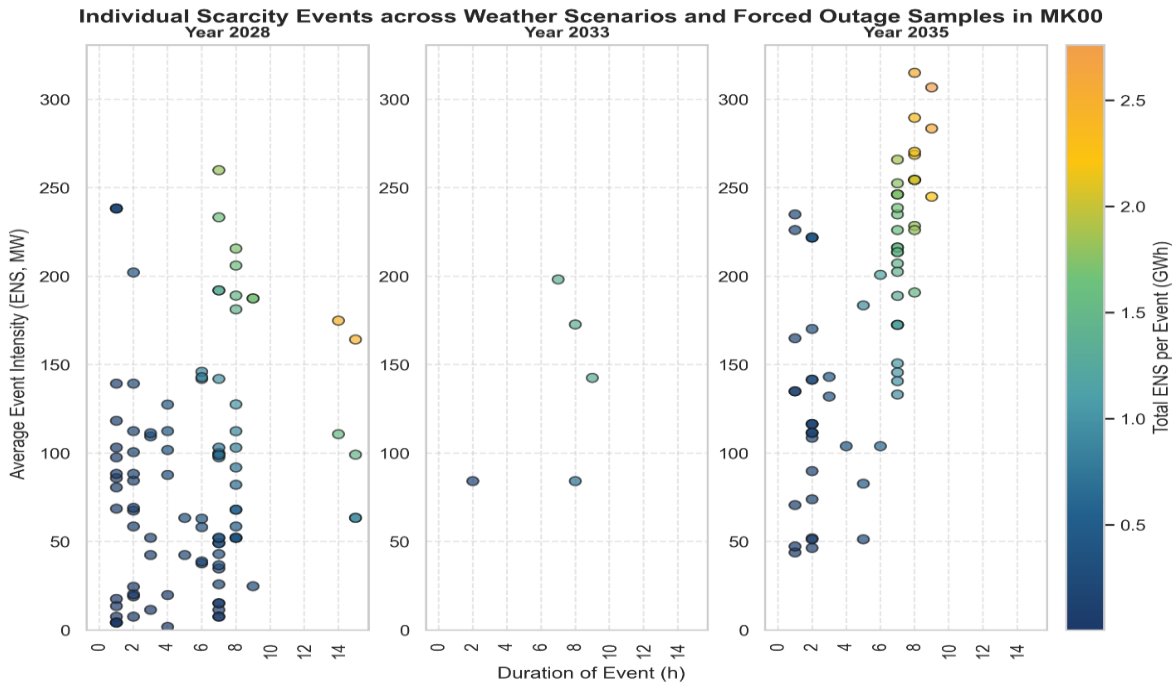


2. Native demand percentiles during scarcity for the central reference scenario

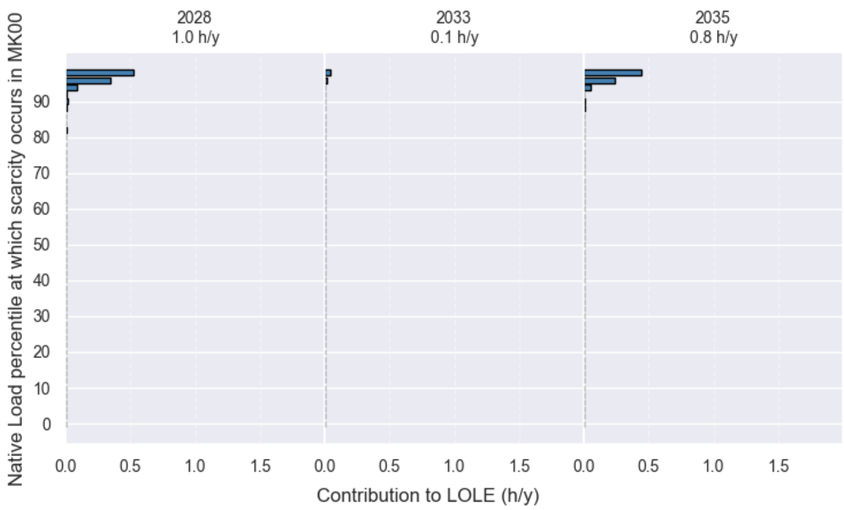


6.22 North Macedonia

1. ENS events distribution for the central reference scenario

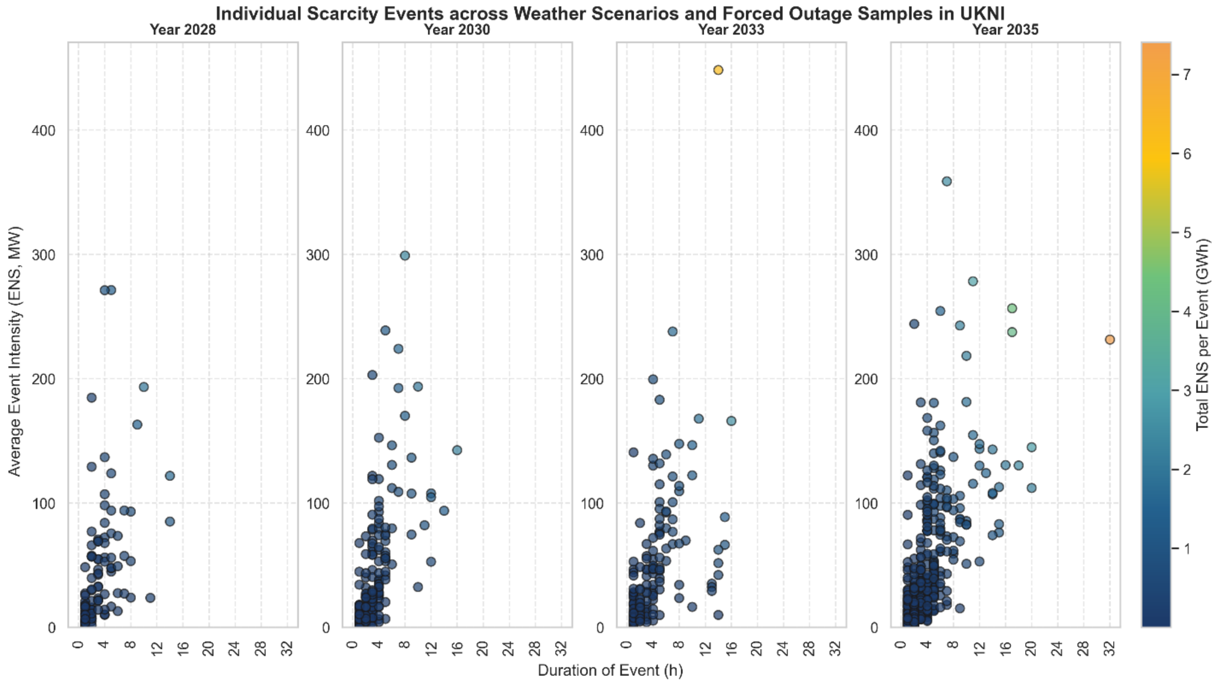


2. Native demand percentiles during scarcity for the central reference scenario

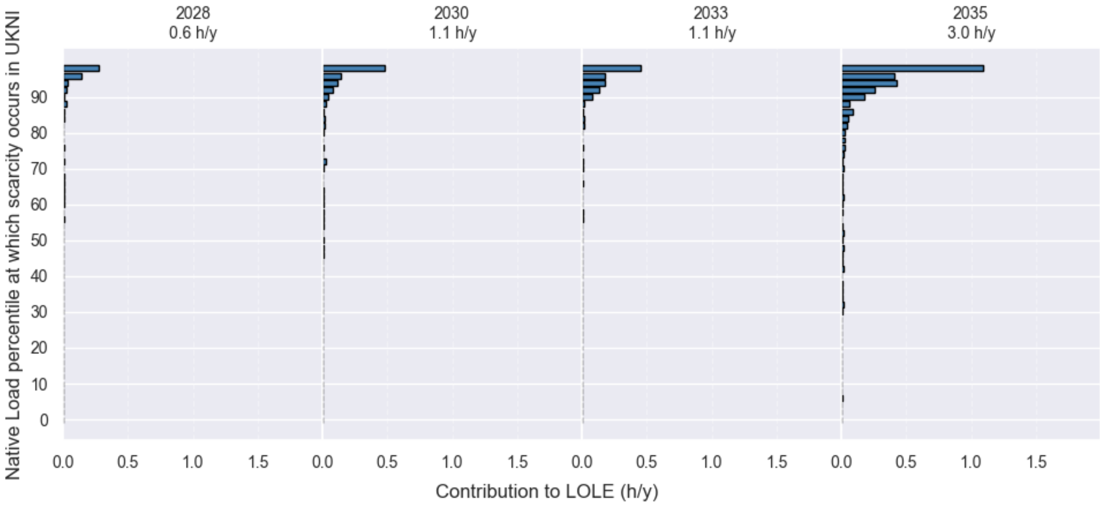


6.23 Northern Ireland

1. ENS events distribution for the central reference scenario



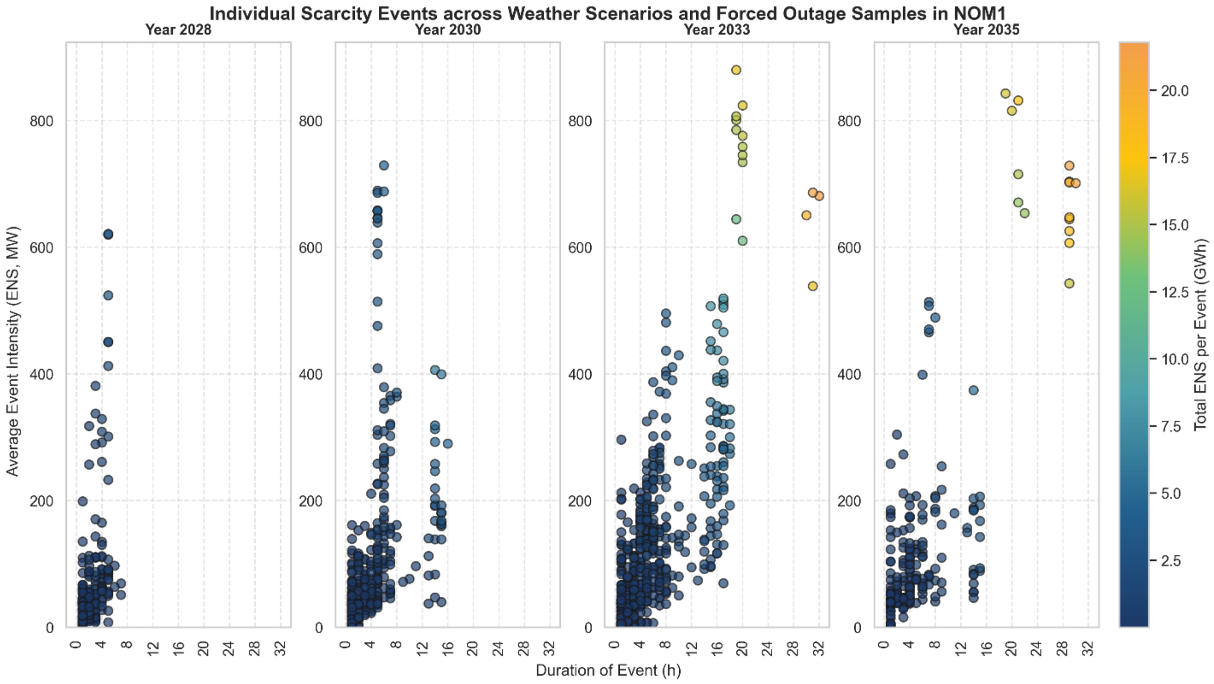
2. Native demand percentiles during scarcity for the central reference scenario



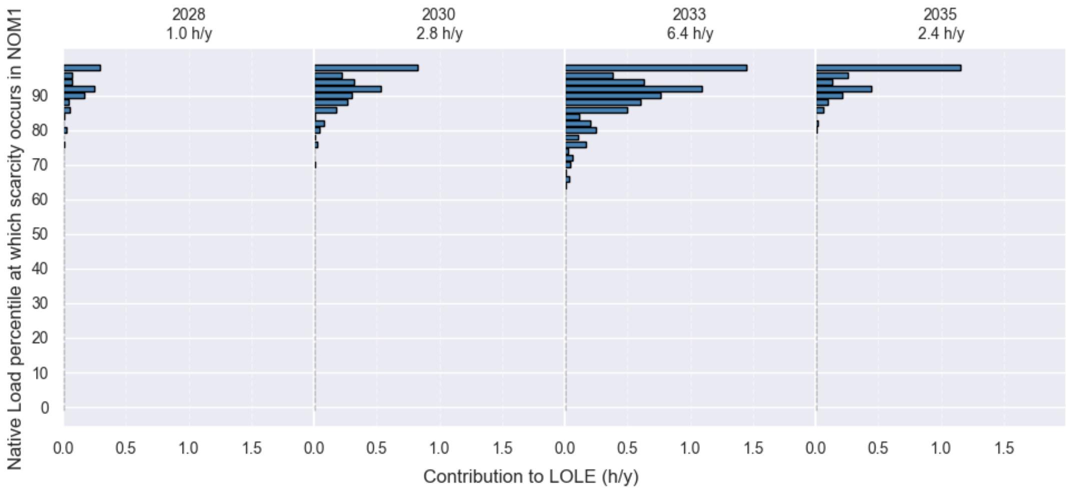
6.24 Norway

6.24.1 NOM1

1. ENS events distribution for the central reference scenario

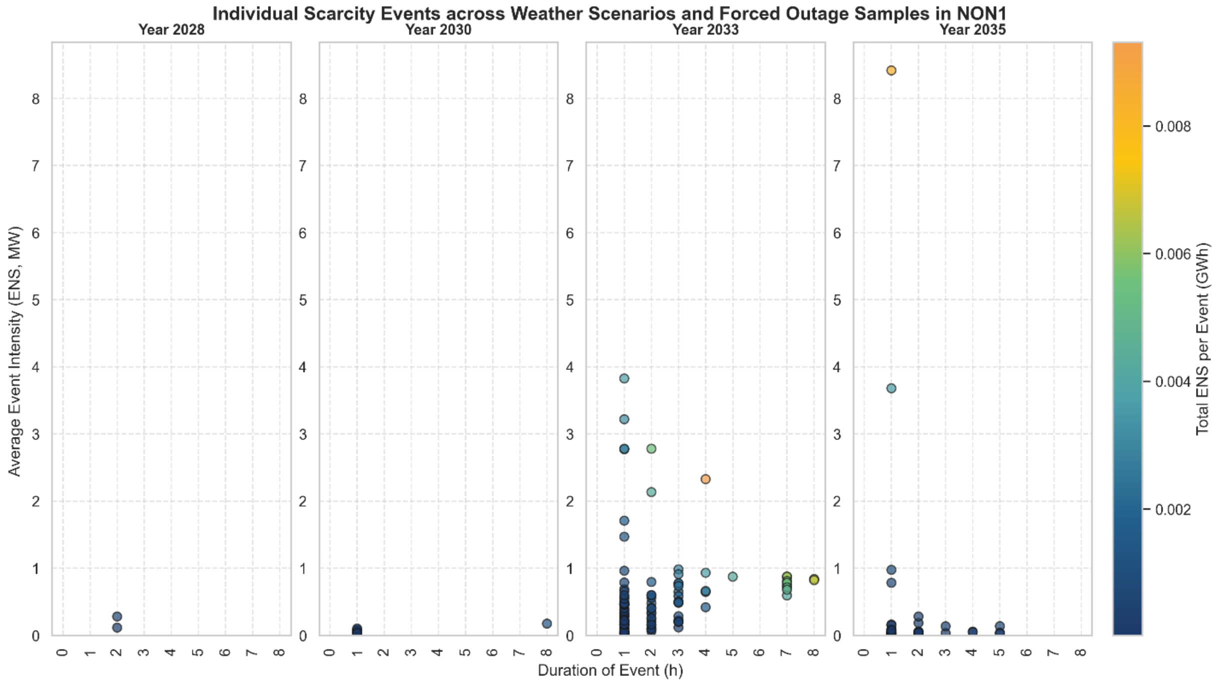


2. Native demand percentiles during scarcity for the central reference scenario

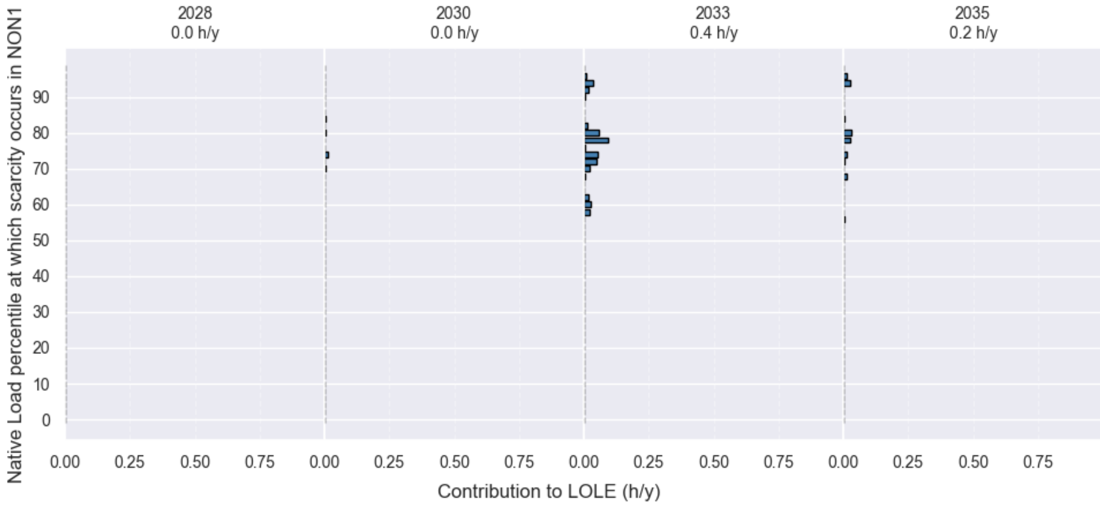


6.24.2 NON1

1. ENS events distribution for the central reference scenario

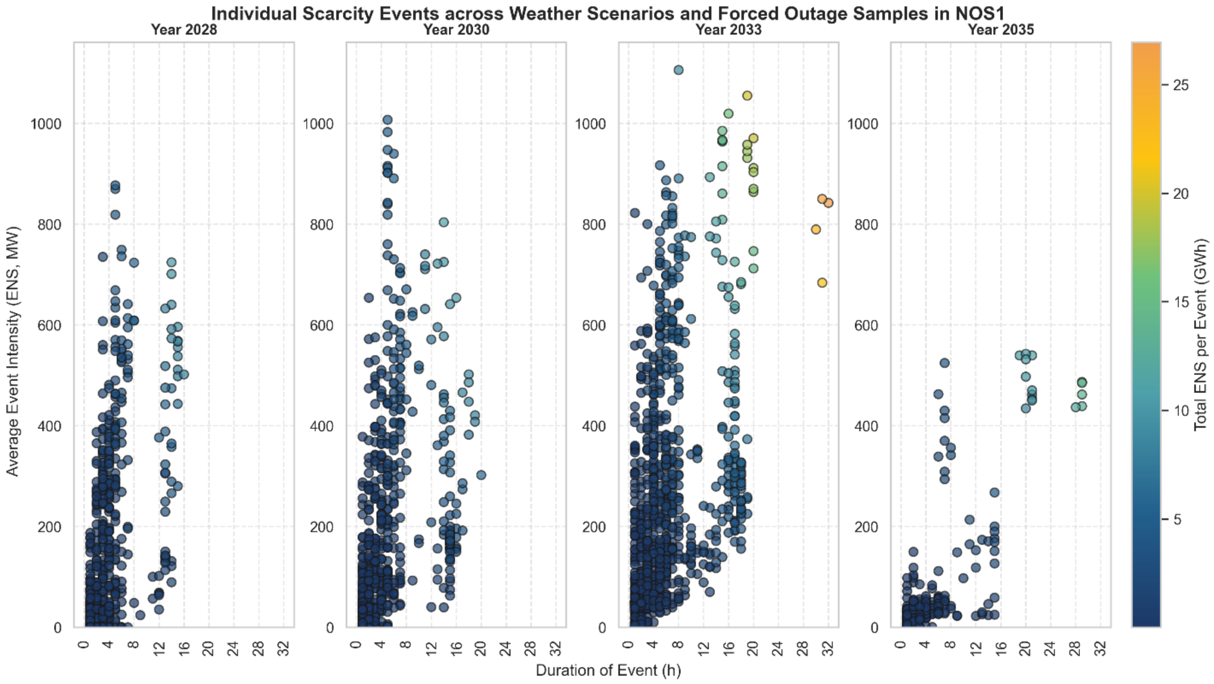


2. Native demand percentiles during scarcity for the central reference scenario

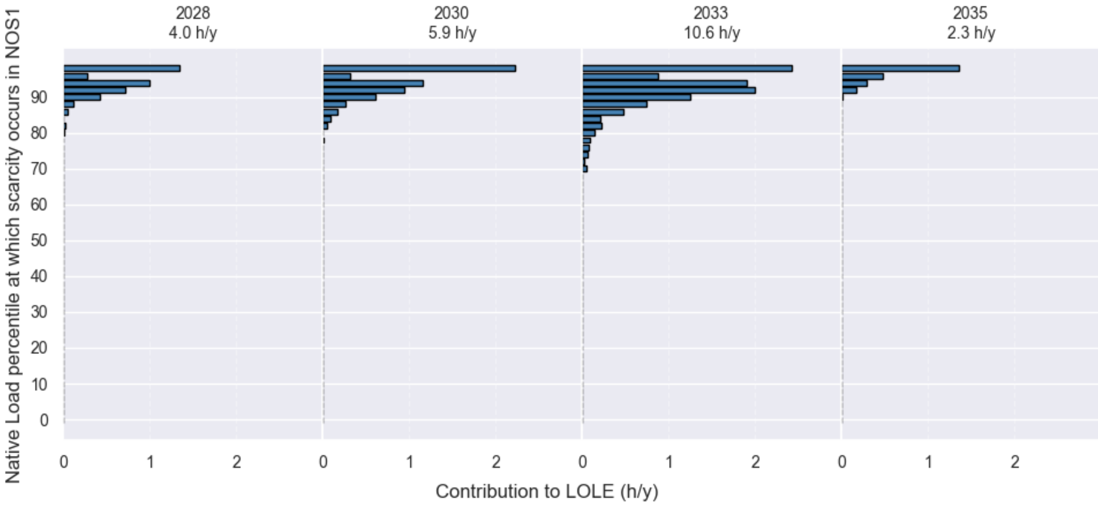


6.24.3 NOS1

1. ENS events distribution for the central reference scenario

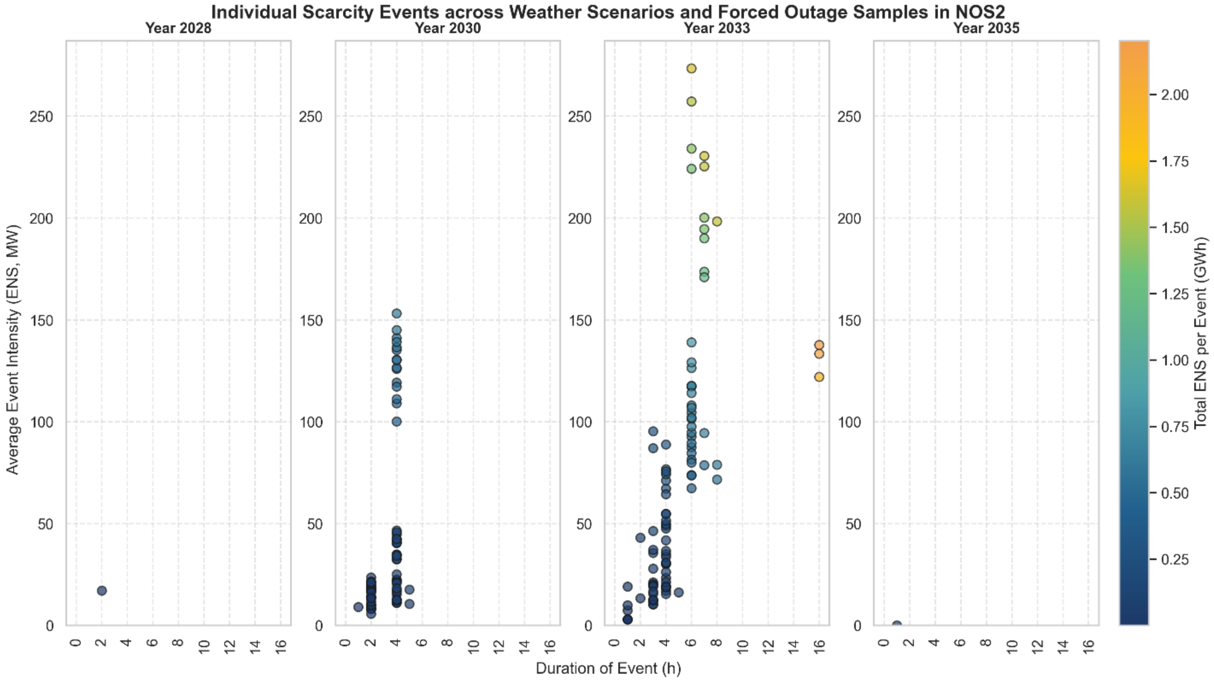


2. Native demand percentiles during scarcity for the central reference scenario

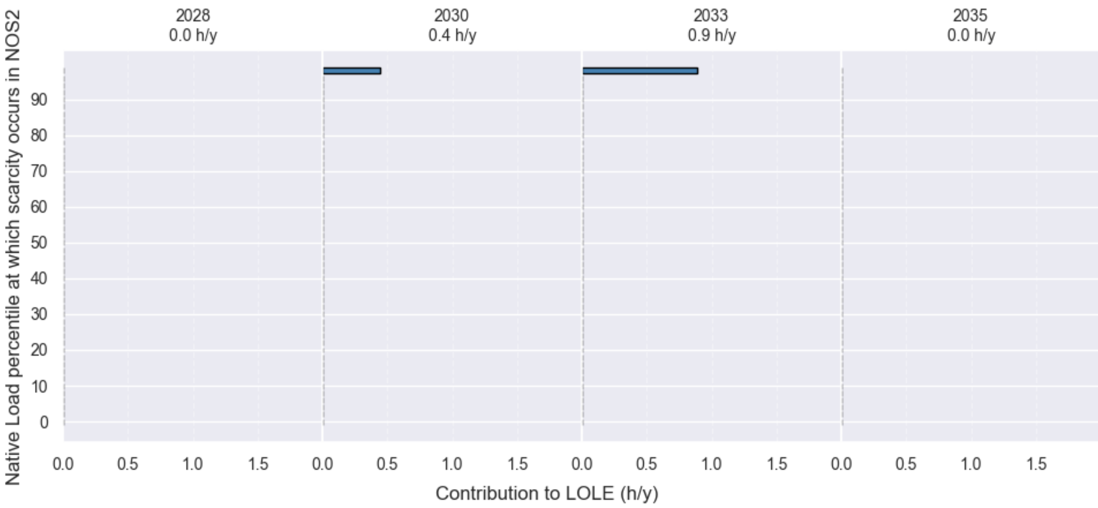


6.24.4 NOS2

1. ENS events distribution for the central reference scenario

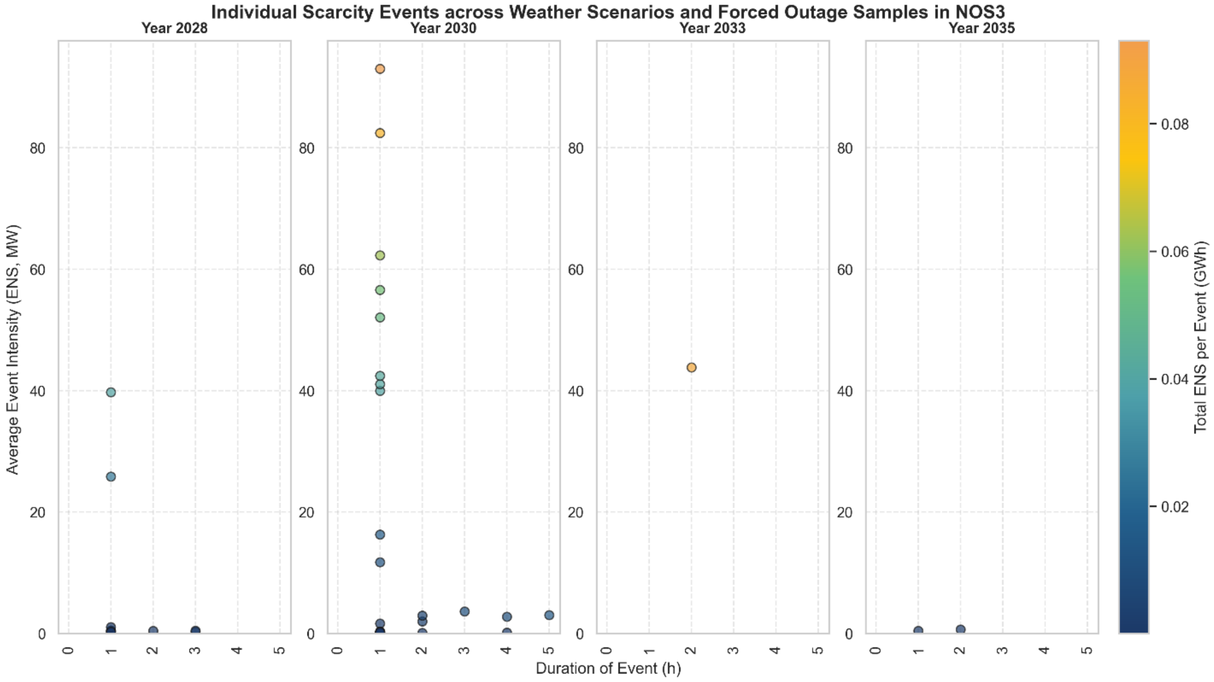


2. Native demand percentiles during scarcity for the central reference scenario

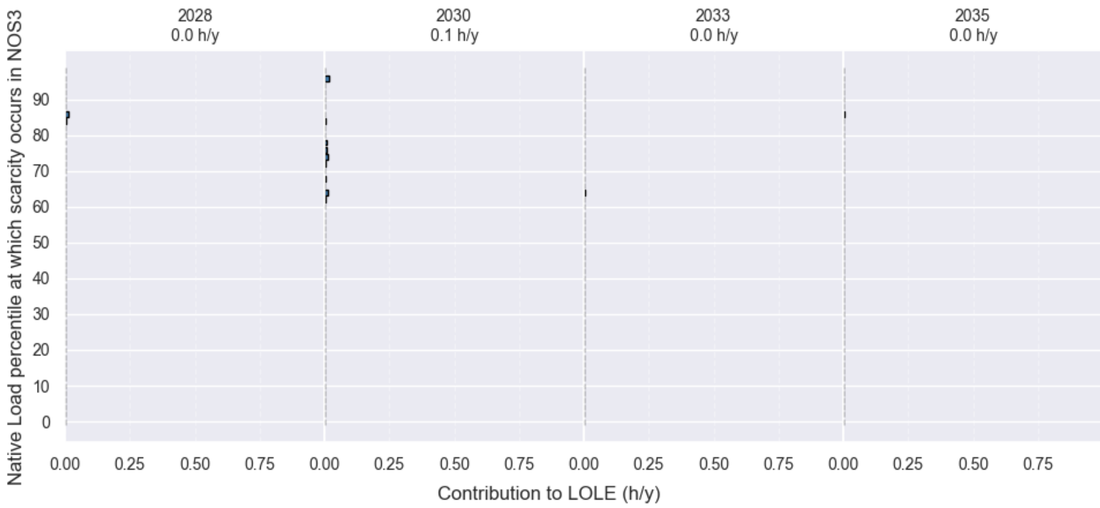


6.24.5 NOS3

1. ENS events distribution for the central reference scenario

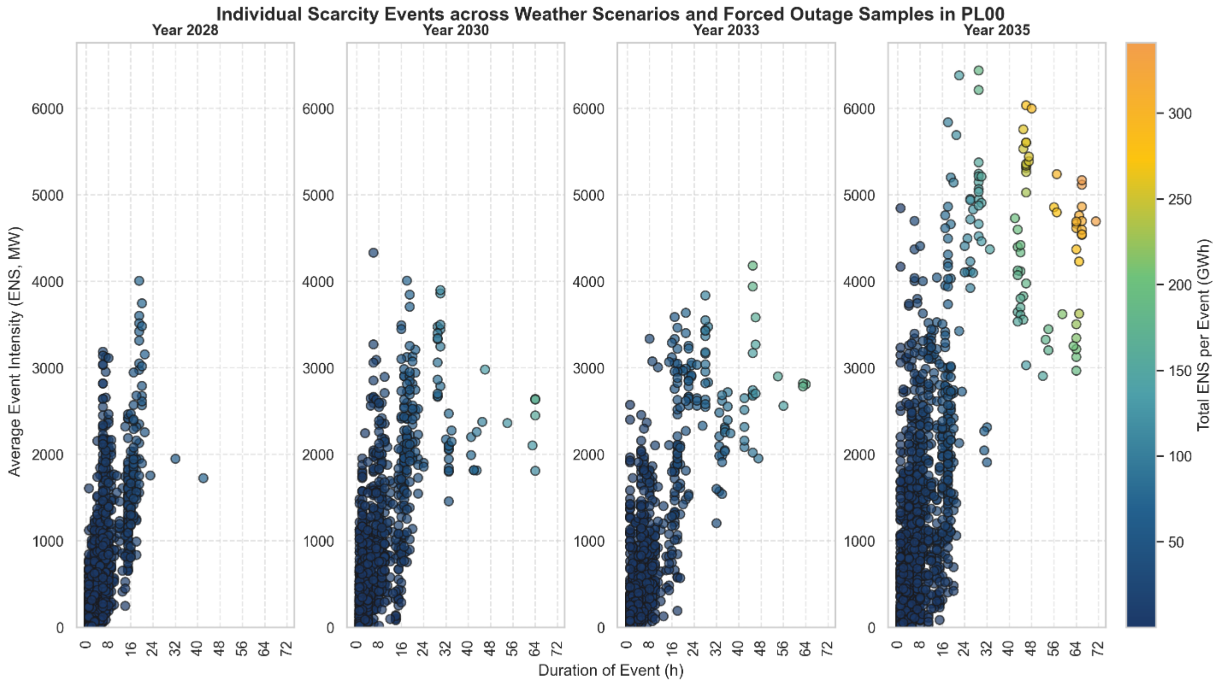


2. Native demand percentiles during scarcity for the central reference scenario

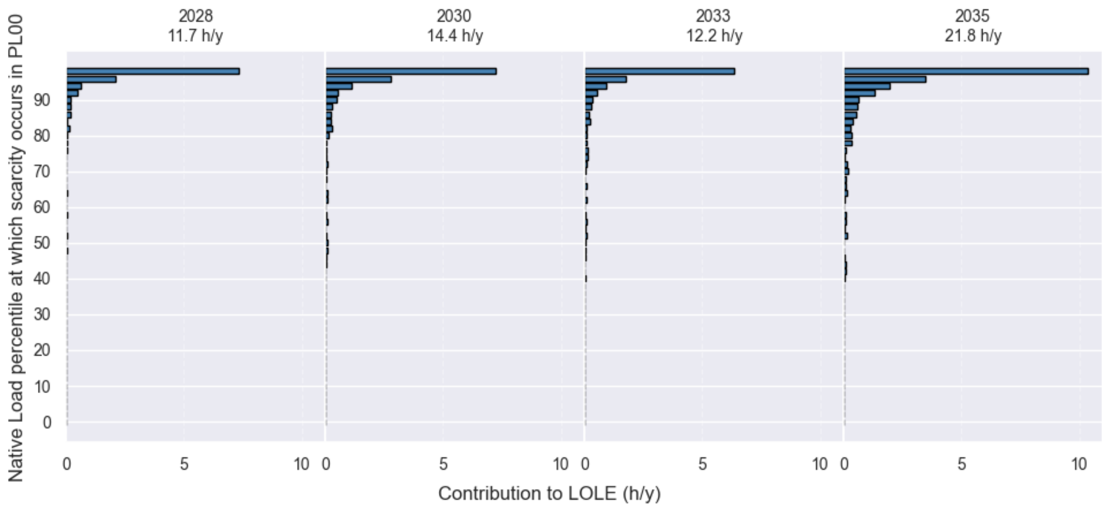


6.25 Poland

1. ENS events distribution for the central reference scenario

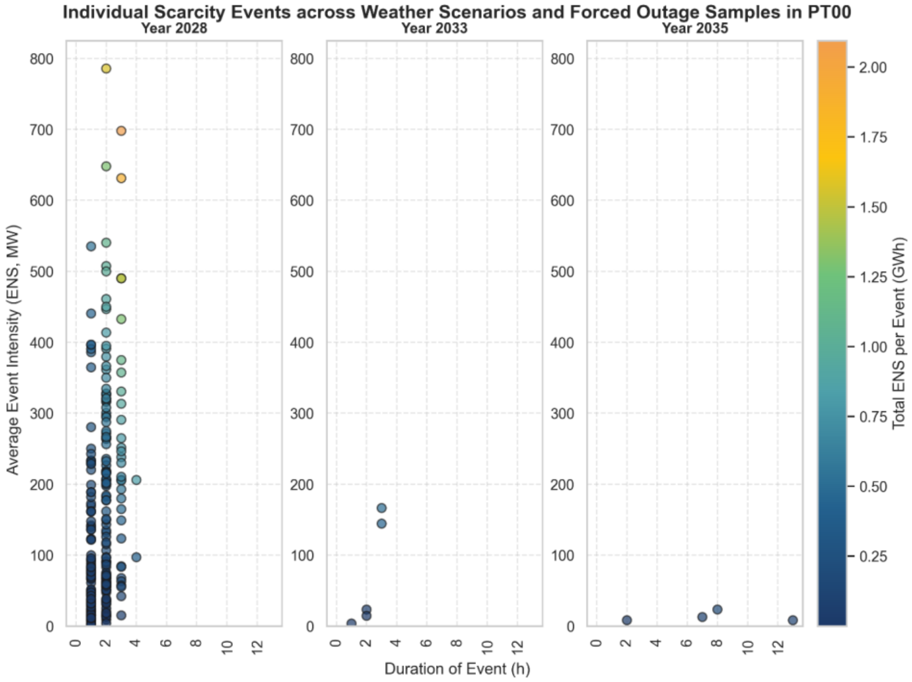


2. Native demand percentiles during scarcity for the central reference scenario

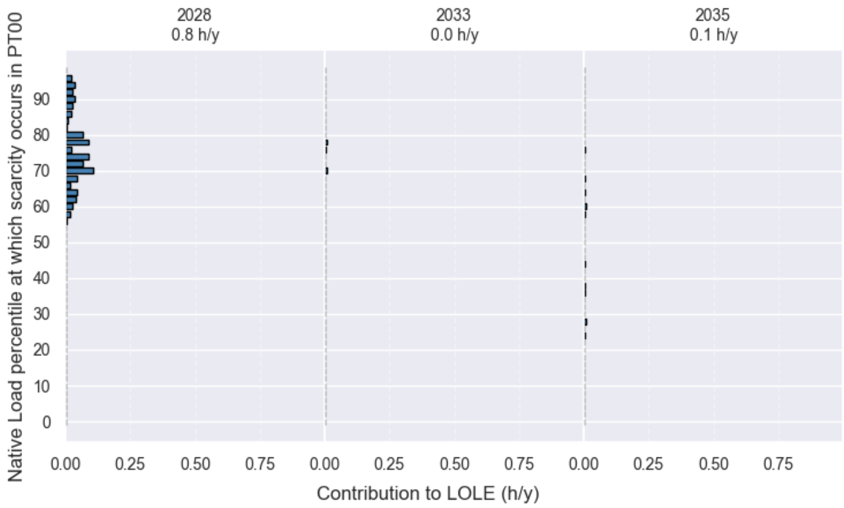


6.26 Portugal

1. ENS events distribution for the central reference scenario

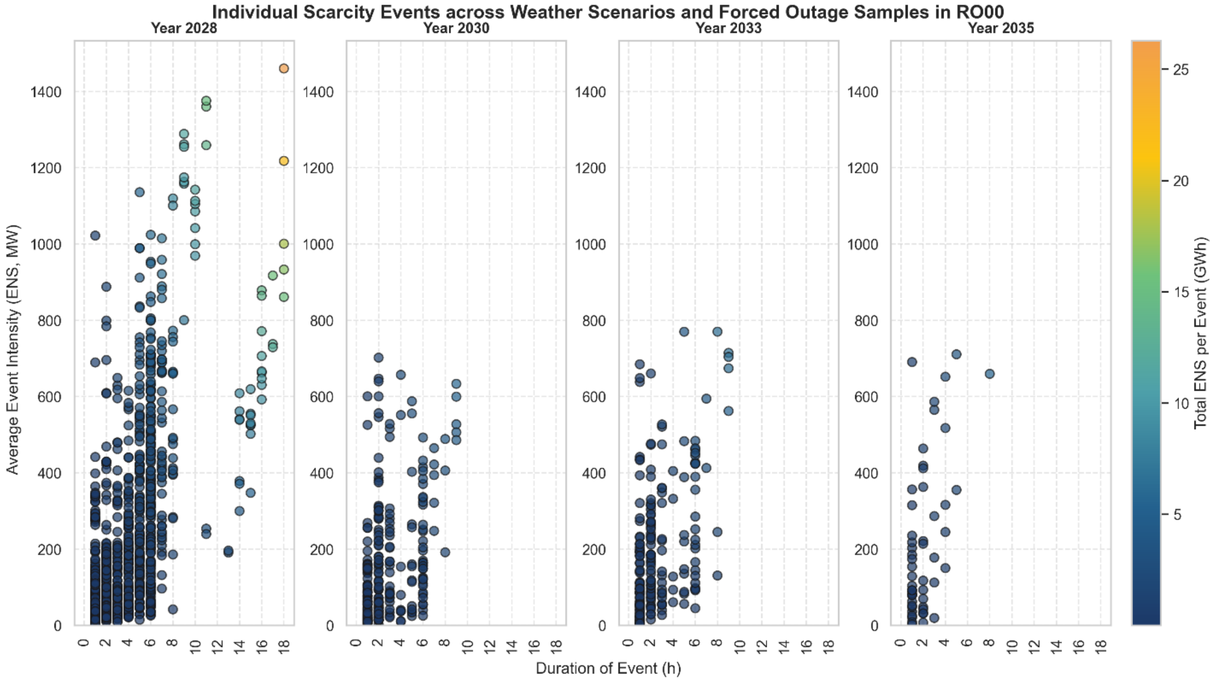


2. Native demand percentiles during scarcity for the central reference scenario

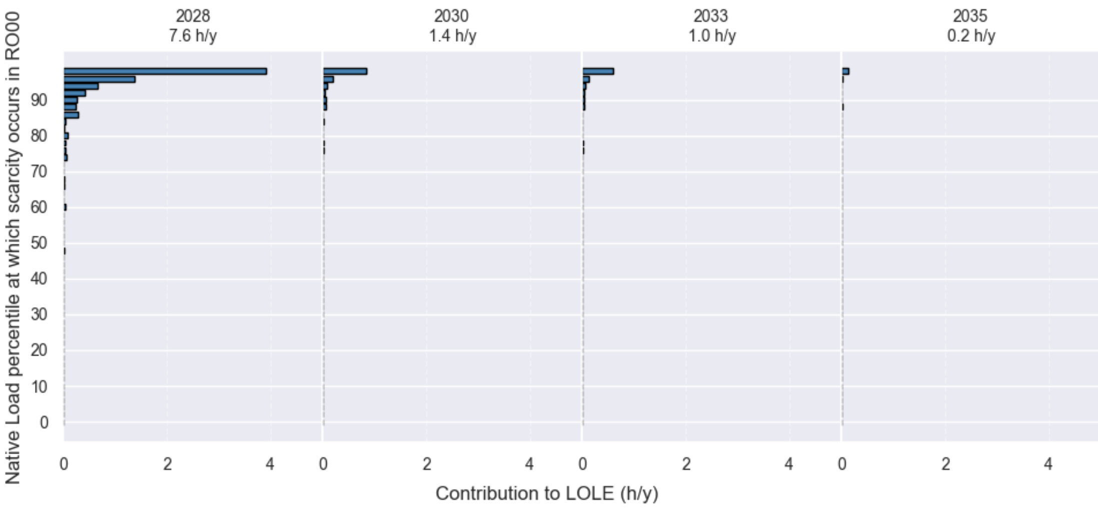


6.27 Romania

1. ENS events distribution for the central reference scenario

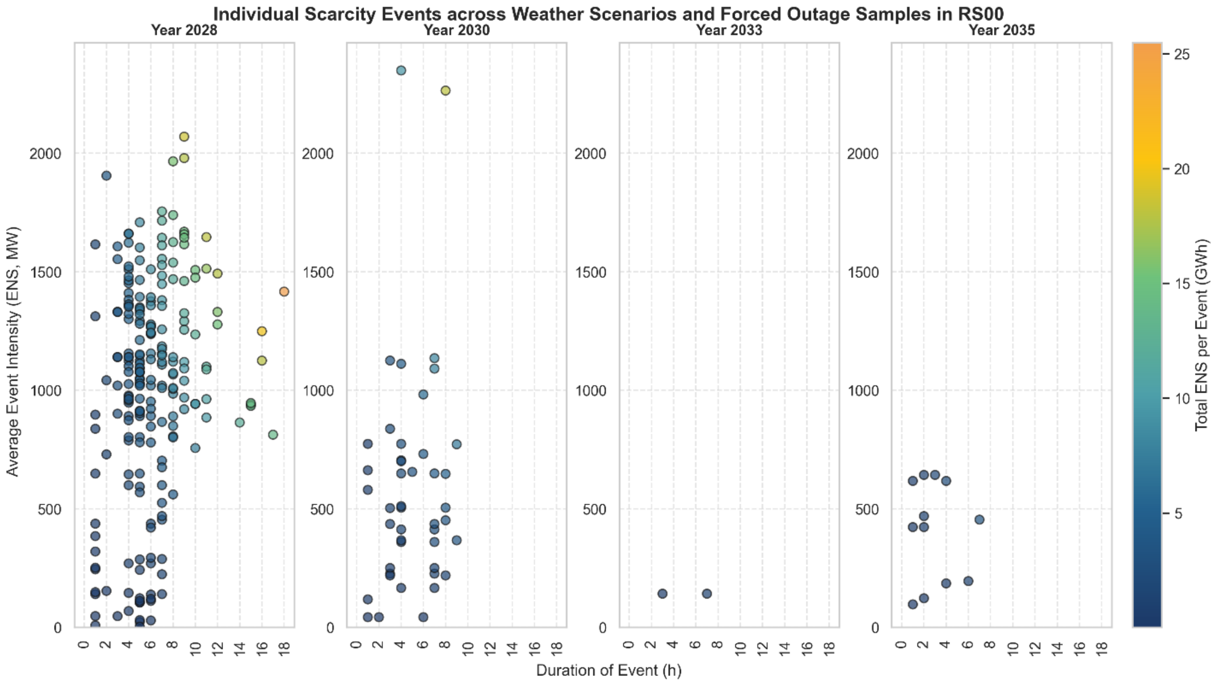


2. Native demand percentiles during scarcity for the central reference scenario

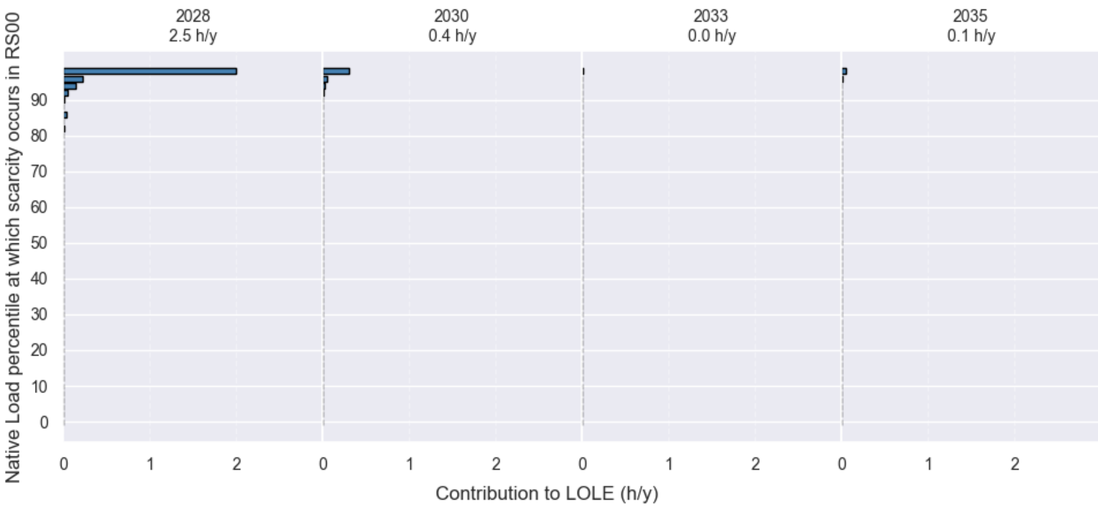


6.28 Serbia

1. ENS events distribution for the central reference scenario

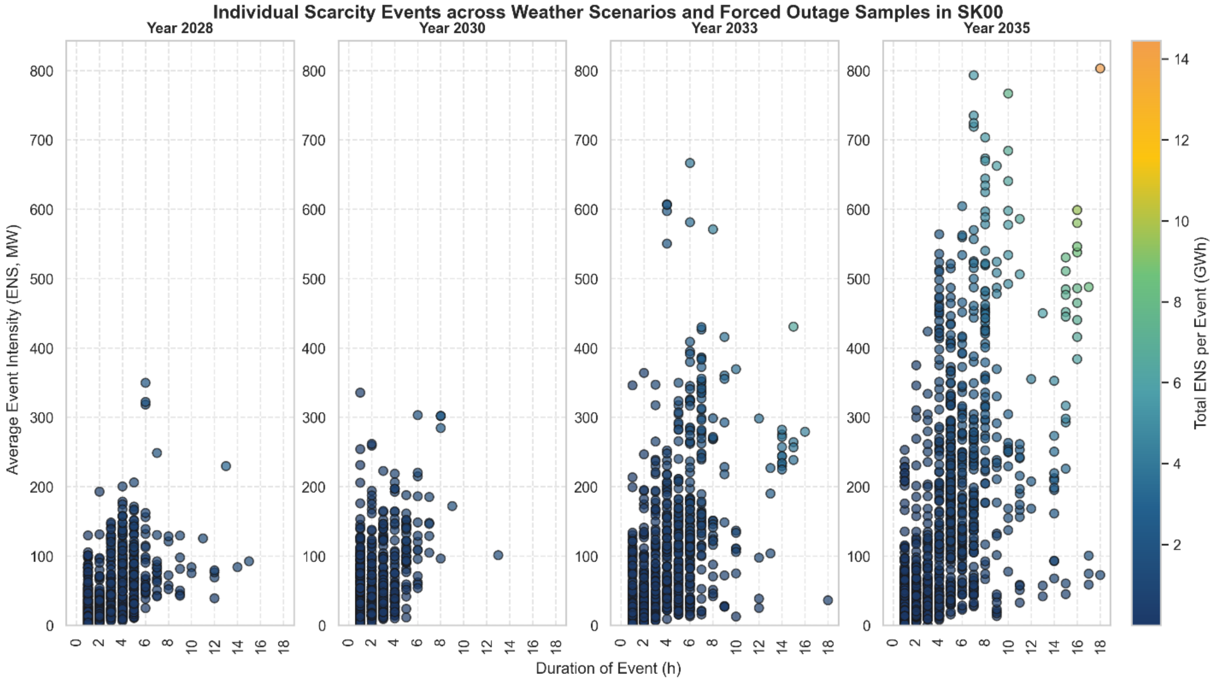


2. Native demand percentiles during scarcity for the central reference scenario

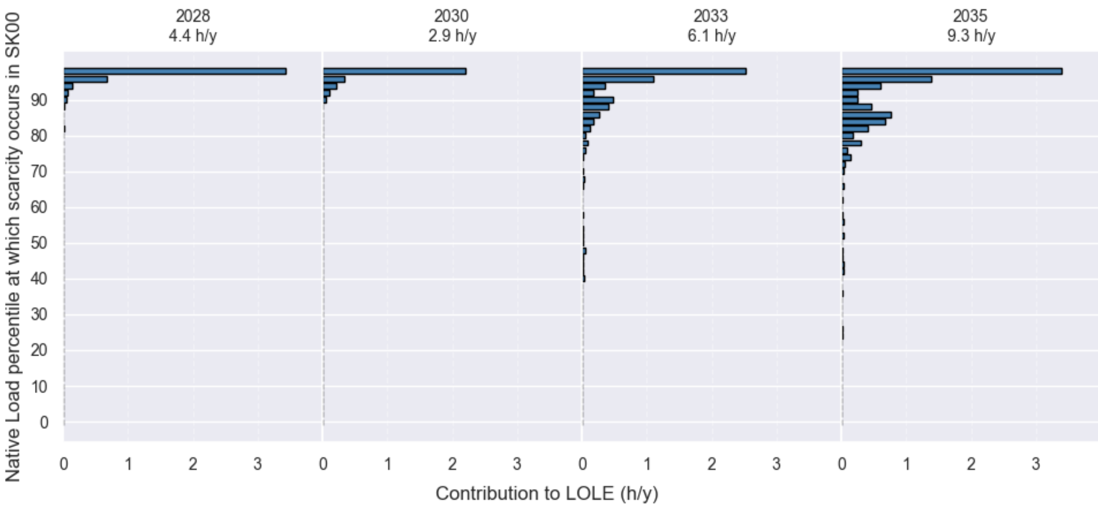


6.29 Slovakia

1. ENS events distribution for the central reference scenario

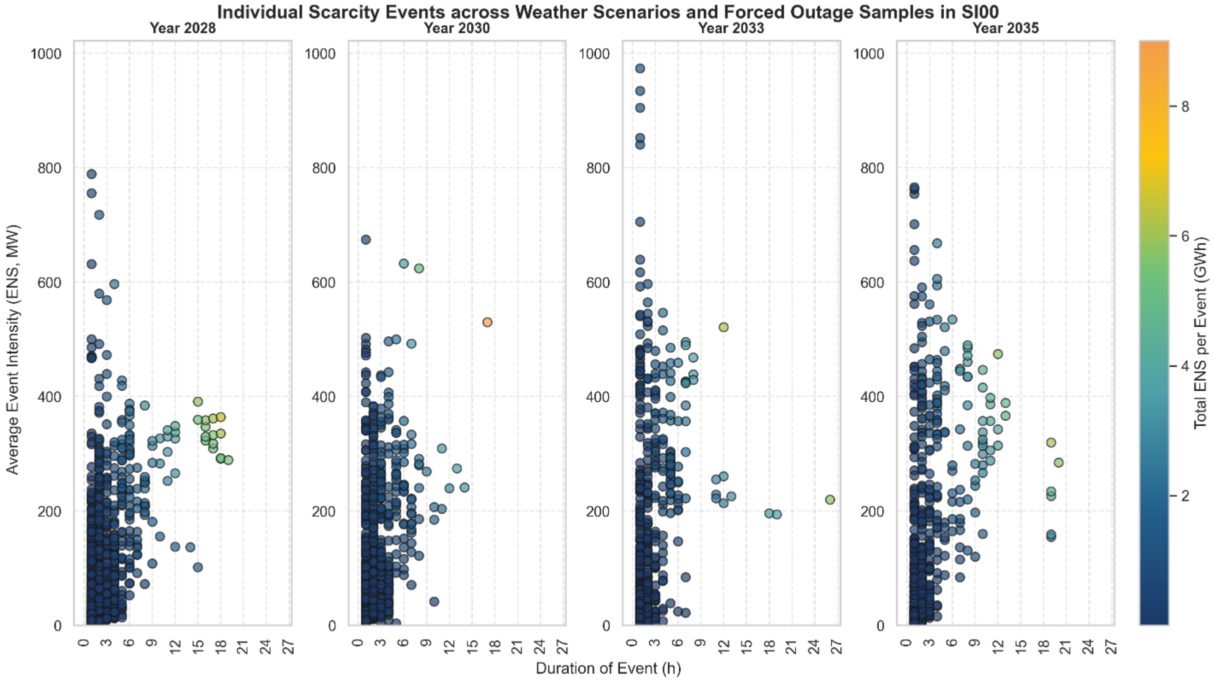


2. Native demand percentiles during scarcity for the central reference scenario

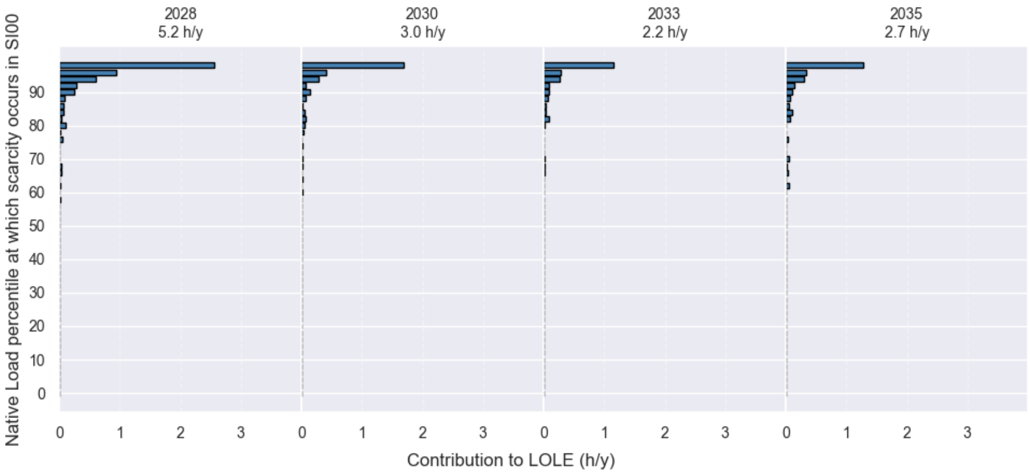


6.30 Slovenia

1. ENS events distribution for the central reference scenario

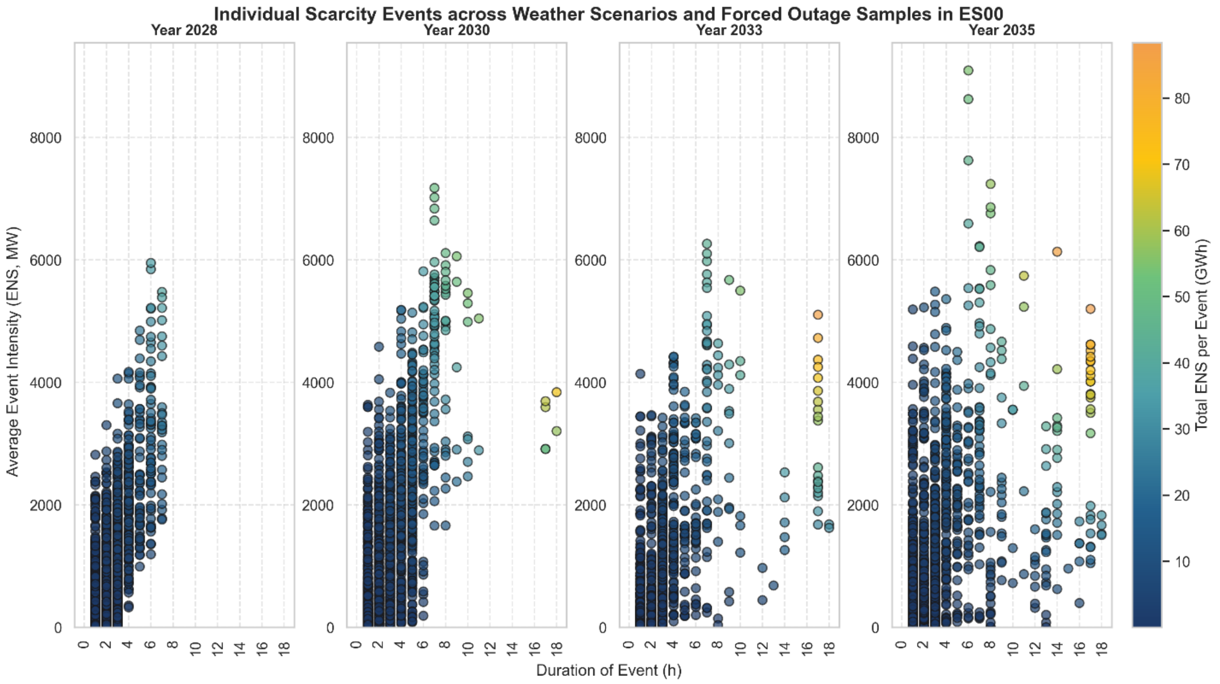


2. Native demand percentiles during scarcity for the central reference scenario

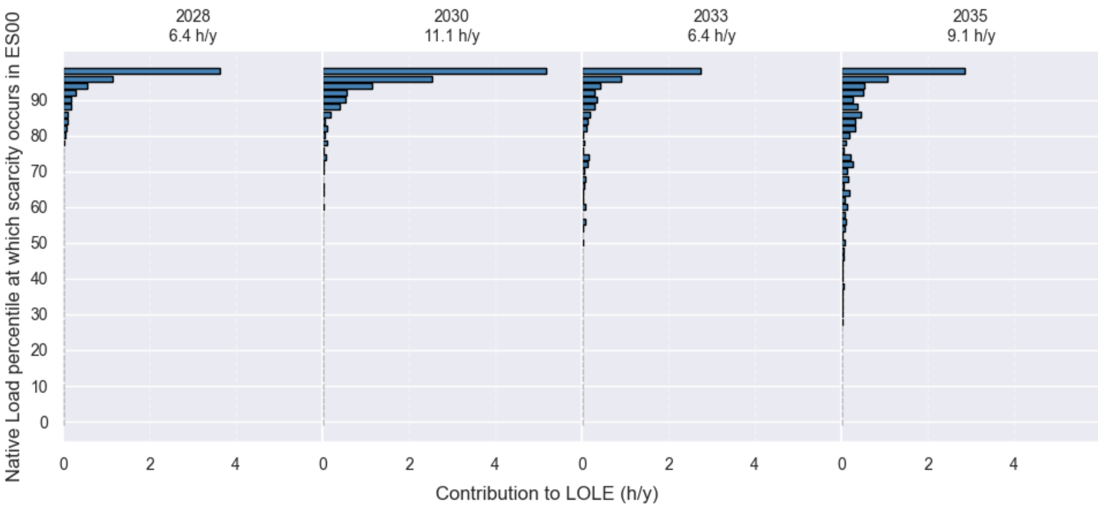


6.31 Spain

1. ENS events distribution for the central reference scenario



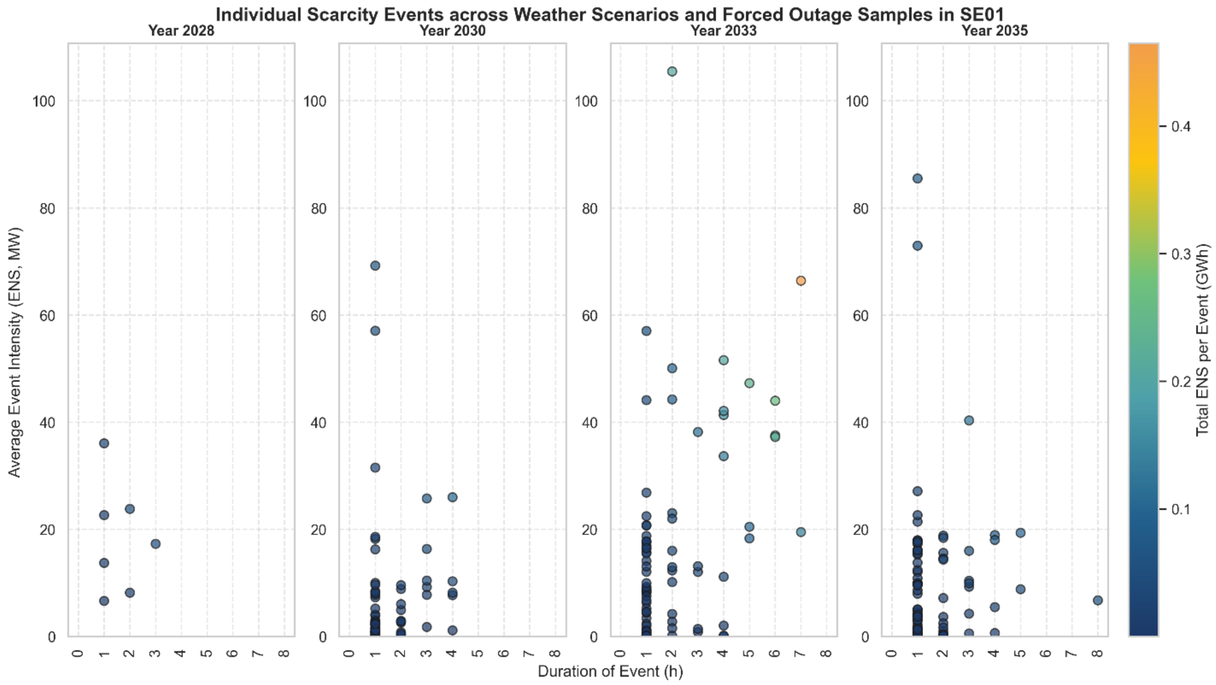
2. Native demand percentiles during scarcity for the central reference scenario



6.32 Sweden

6.32.1 SE01

1. ENS events distribution for the central reference scenario



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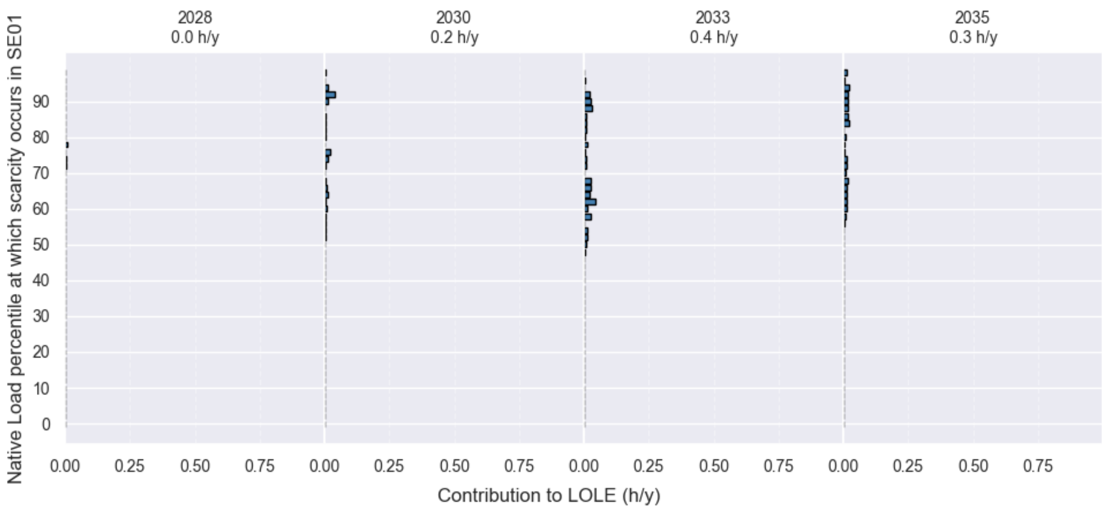
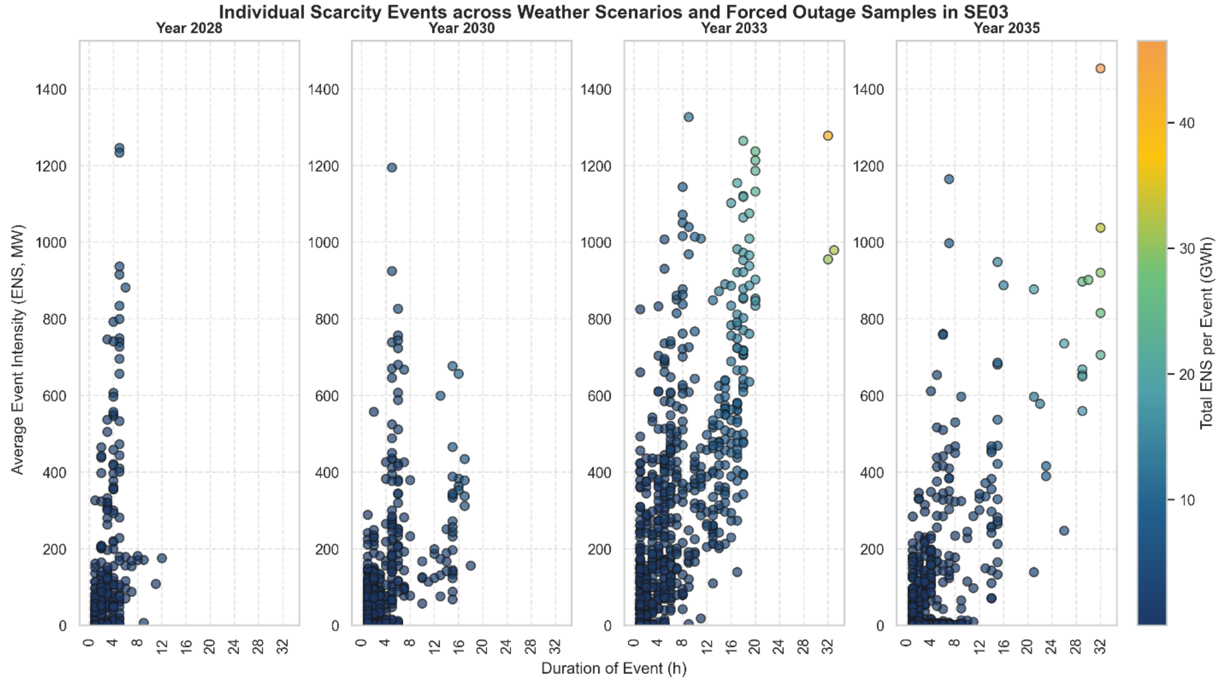
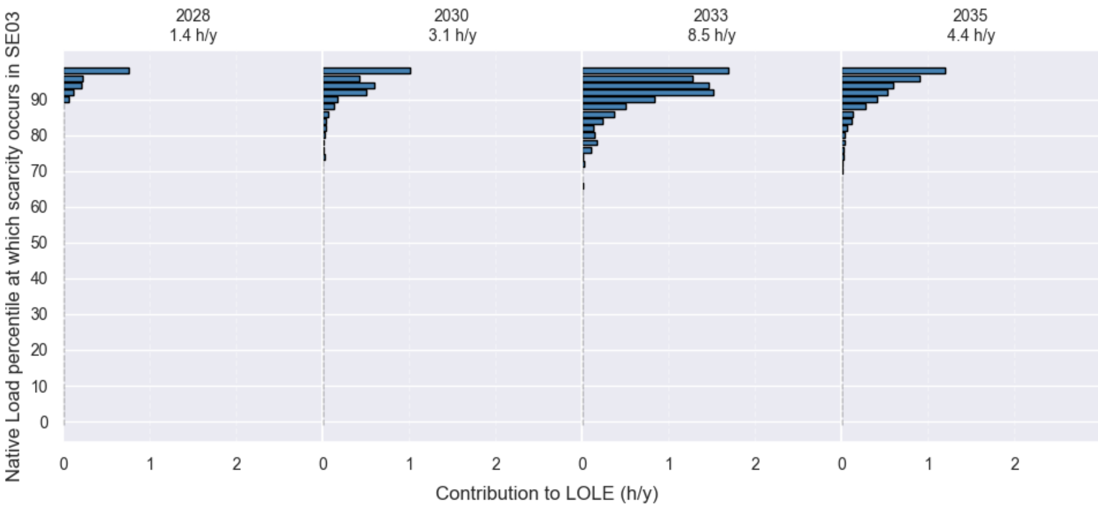


6.32.2 SE03

1. ENS events distribution for the central reference scenario

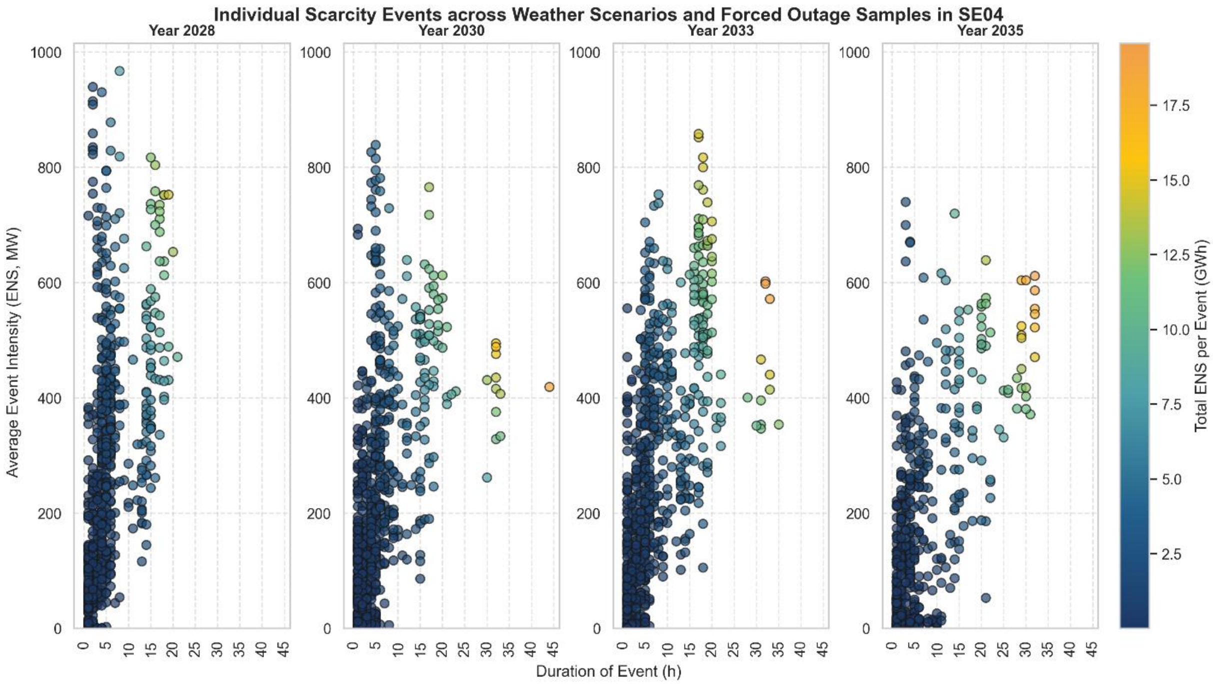


2. Native demand percentiles during scarcity for the central reference scenario

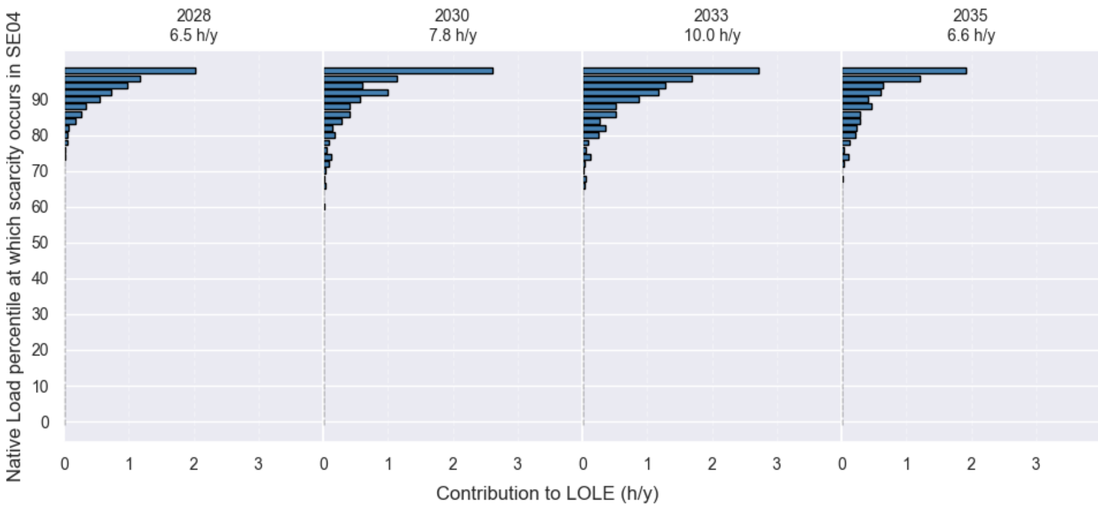


6.32.3 SE04

1. ENS events distribution for the central reference scenario

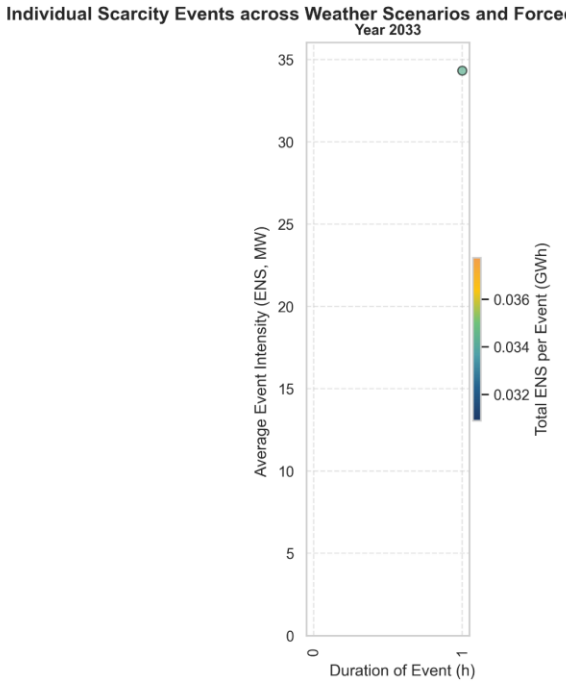


2. Native demand percentiles during scarcity for the central reference scenario

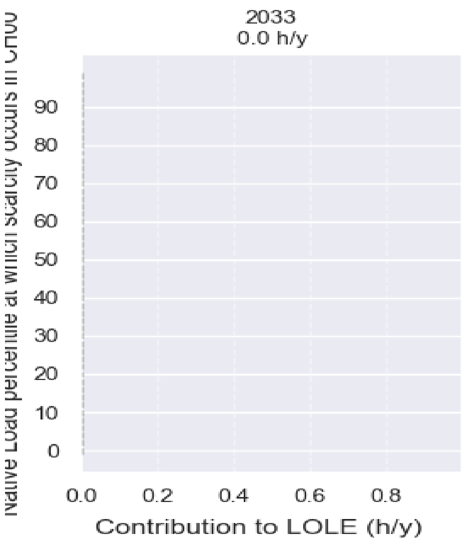


6.33 Switzerland

1. ENS events distribution for the central reference scenario

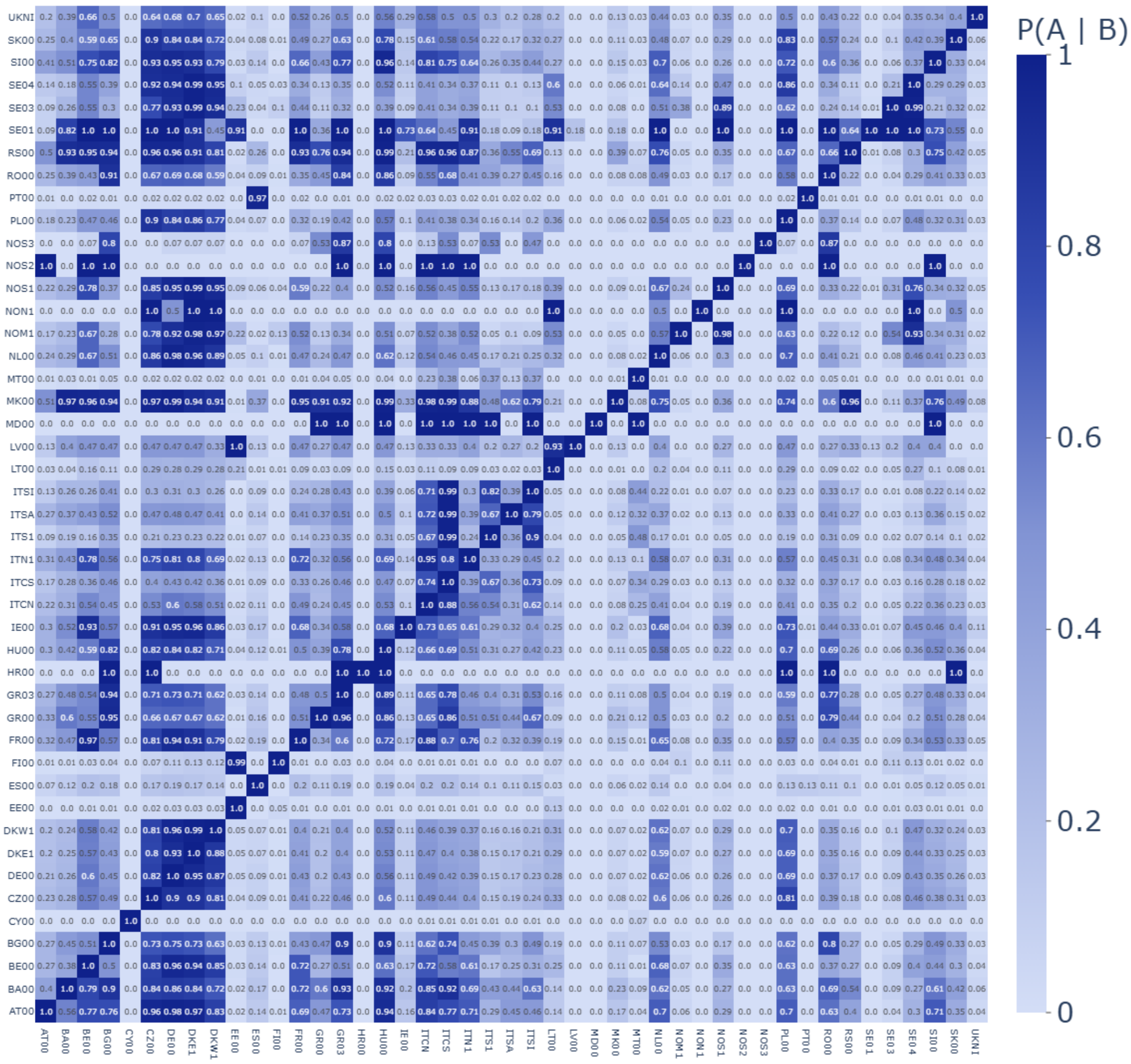


2. Native demand percentiles during scarcity for the central reference scenario

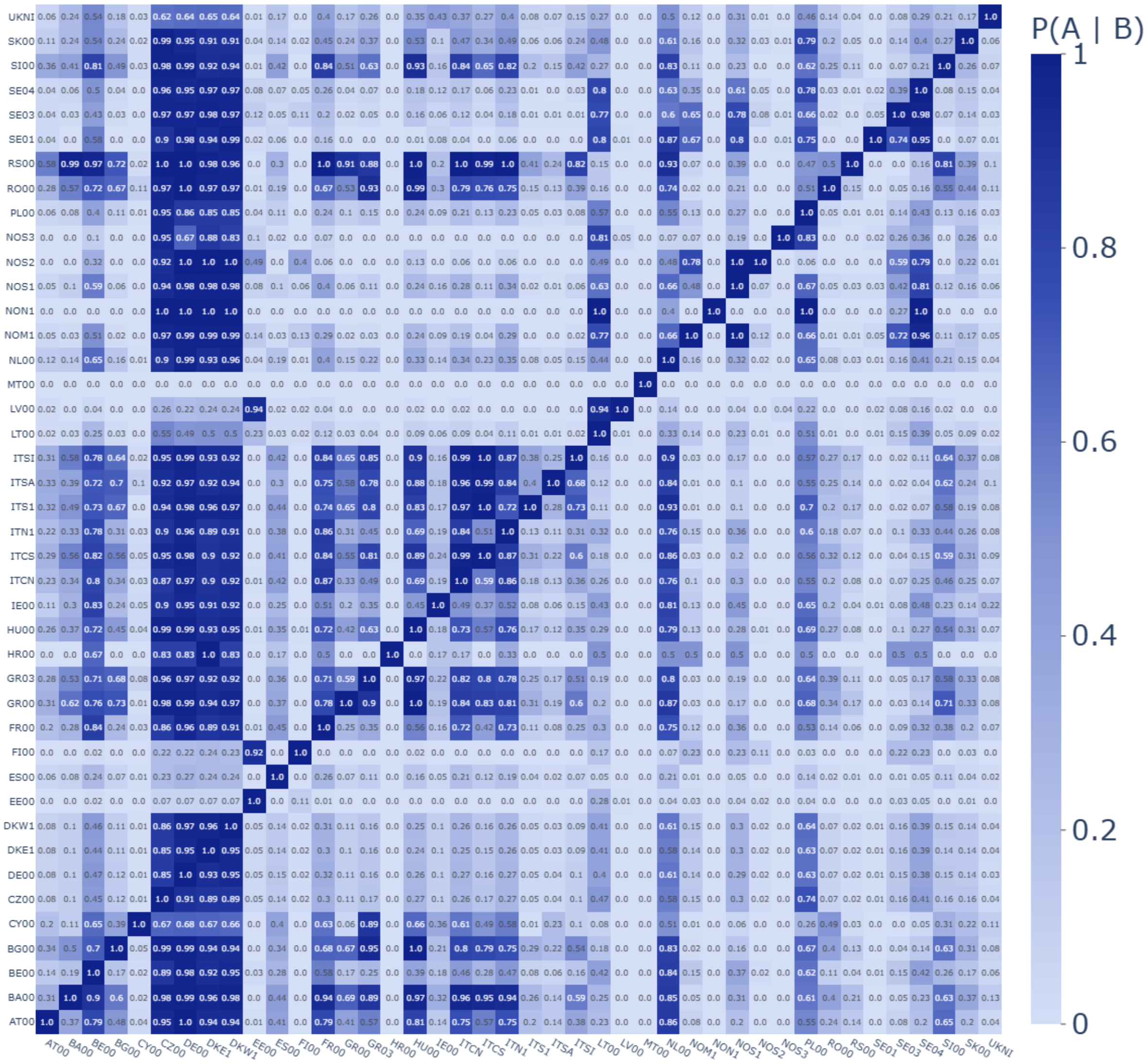


Appendix: Simultaneous scarcity analysis for all study zones

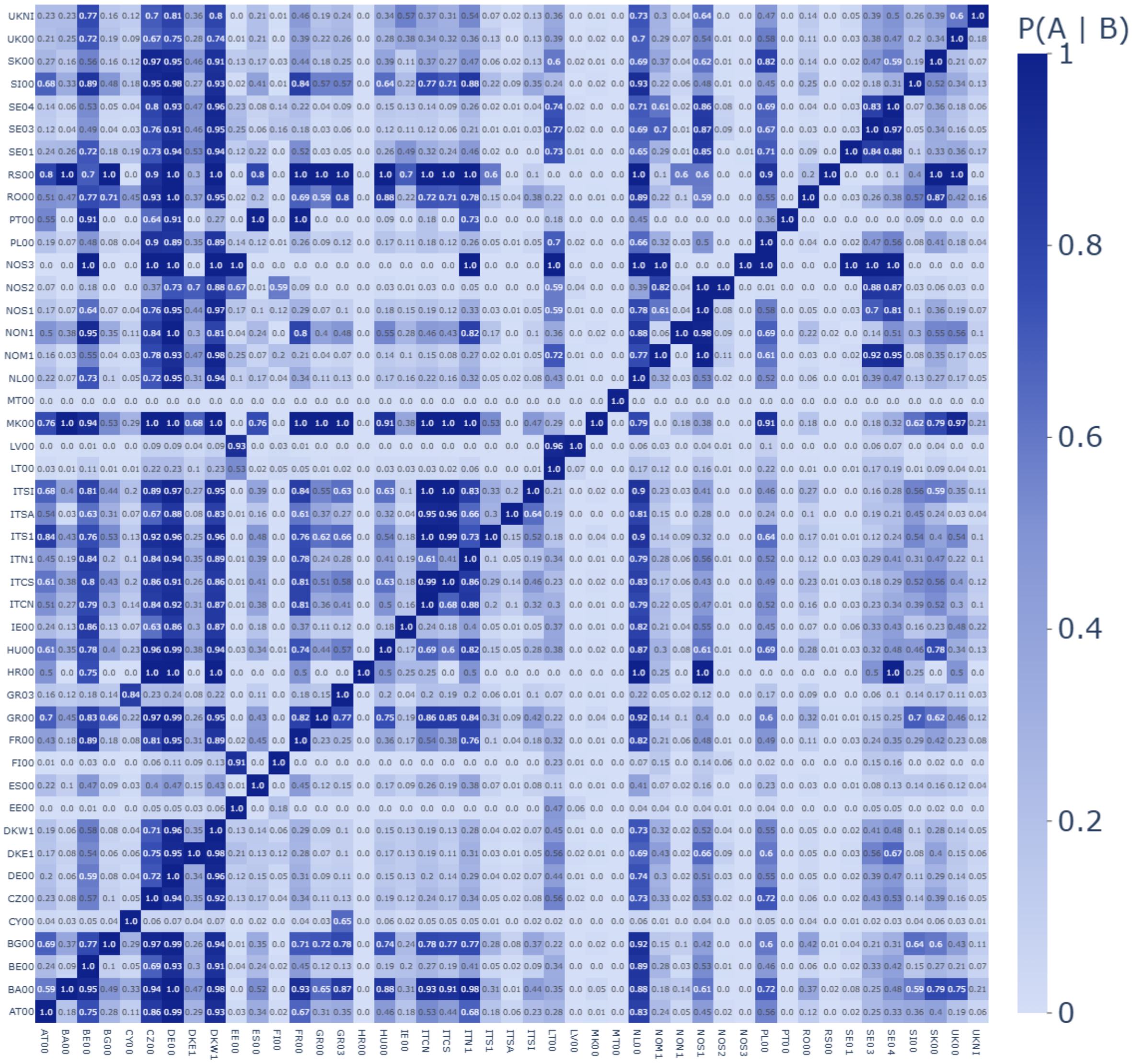
TY 2028



TY 2030


P(A | B)
1
0.8
0.6
0.4
0.2
0
UKNI
SK00
SI00
SE04
SE03
SE01
RS00
RO00
PL00
NOS3
NOS2
NOS1
NON1
NOM1
NL00
MT00
LV00
LT00
ITSI
ITSA
ITS1
ITN1
ITCS
ITCN
IE00
HU00
HR00
GR03
GR00
FR00
FI00
ES00
EE00
DKW1
DKE1
DE00
CZ00
CY00
BG00
BE00
BA00
AT00

TY 2033



P(A | B)
1
0.8
0.6
0.4
0.2
0
UKNI
UK00
SK00
SI00
SE04
SE03
SE01
RS00
RO00
PT00
PL00
NOS3
NOS2
NOS1
NON1
NOM1
NL00
MT00
MK00
LV00
LT00
ITSI
ITSA
ITS1
ITN1
ITCS
ITCN
IE00
HU00
HR00
GR03
GR00
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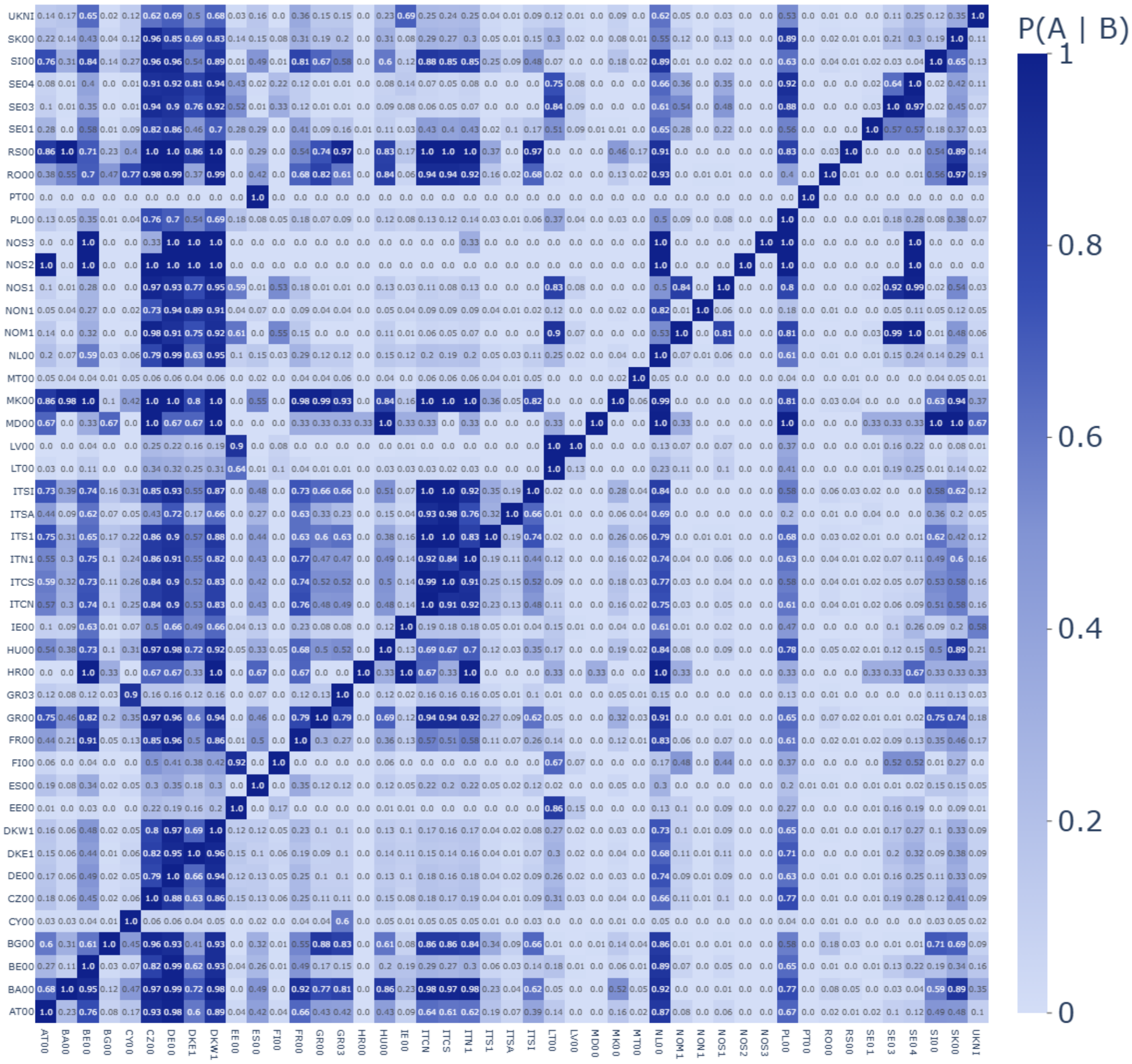
TY 2035


P(A | B)
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0.6
0.4
0.2
0
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SE04
SE03
SE01
RS00
RO00
PT00
PL00
NOS3
NOS2
NOS1
NON1
NOM1
NL00
MT00
MK00
MD00
LV00
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ITSI
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ITS1
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IE00
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