



Procurement strategies and margin obligations in energy distribution companies: An analysis from the energy crisis to today


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Energy producers and suppliers were exposed to high margining risks due to skyrocketing wholesale prices during the energy crisis

 Bundesministerium der Finanzen

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ENTLASTUNGEN



Weiteres Absicherungsinstrument (Margining) aus dem Schutzschild der Bundesregierung für von Kriegsfolgen betroffene Unternehmen startet

Das Kriegsgeschehen in der Ukraine hat spürbare Auswirkungen auch auf deutsche Unternehmen. Stark gestiegene Energiepreise stellen für viele Unternehmen eine Belastung dar. Für die vom Krieg besonders betroffenen Unternehmen haben das Bundesfinanzministerium und das Bundeswirtschafts- und Klimaschutzministerium deswegen bereits im April ein umfassendes Maßnahmenpaket vorgelegt. Dieses Paket wird Schritt für Schritt umgesetzt. Nach dem Ende April bzw. Anfang Mai bereits das KfW-Kreditprogramm und das Bürgschaftsprogramm gestartet sind, kann nun das dritte Instrument an den Start gehen. Beim Margining-Finanzierungsinstrument geht es um ein Absicherungsinstrument, das Unternehmen, die an den Terminbörsen

[Bundesfinanzministerium - Weiteres Absicherungsinstrument \(Margining\) aus dem Schutzschild der Bundesregierung für von Kriegsfolgen betroffene Unternehmen startet](#)

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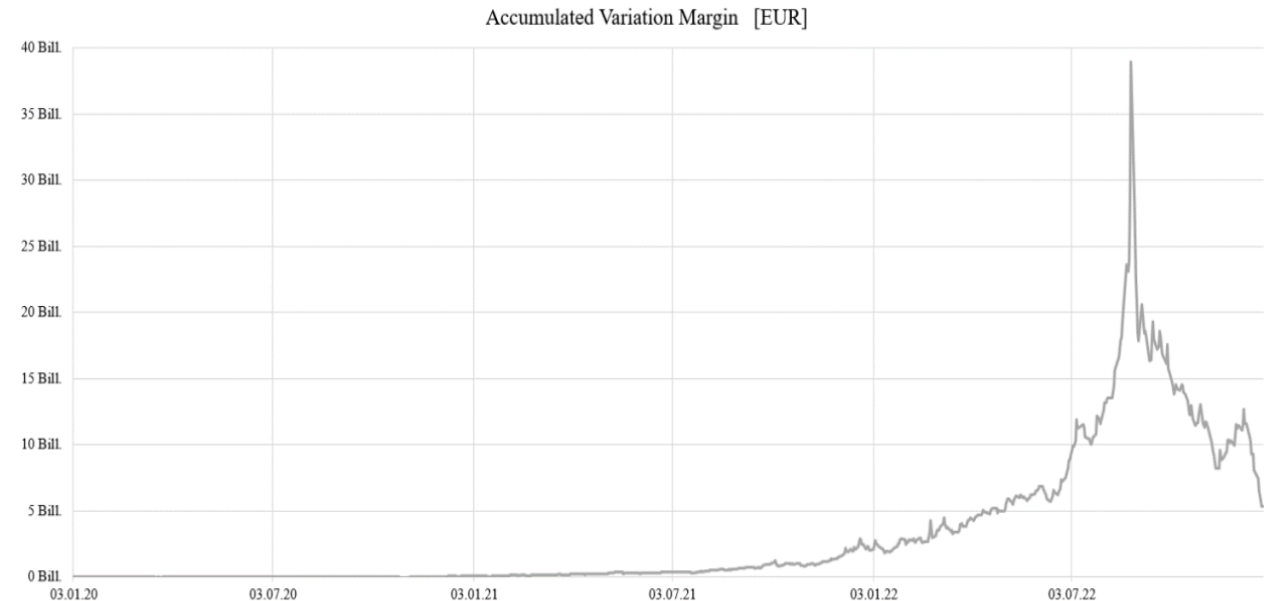
Energieversorger in Europa befürchten einen Zusammenbruch. Denn Margin Calls aufgrund eingegangener Derivate-Geschäfte zeigen einen gravierenden Geldbedarf auf. Politiker und Investoren sind inzwischen alarmiert.



[Lehman-Crash in Europa? Margin Calls in Billionenhöhe drohen - Institutional Money](#)

At present, the margining risk has been examined for energy producers

- Lehrbass et al. calculated for **energy producers** an accumulated variation margin of almost EUR 40 billion in the second half of 2022 as **worst-case price movement**
- No investigation of margining risks at energy distribution companies



(Lehrbass et al., 2023, p.3)

→ *Development of a simulation model for estimating margining risks for energy distribution companies*

Several framework conditions had to be defined for an accurate simulation

- Period under review: **2018 to 2024**
- Procurement (three different strategies) takes place via long positions on the futures market; start at the earliest three years before the delivery year
- annual volumes: 1 TWh_{th} natural gas and 0.5 TWh_{el} electricity, distributed over monthly tranches
- Procurement via the **exchange** or **OTC** with the assumption of **full collateralization**
- Calculation of the daily variation margin (VM):

$$VM_t = V_t * (P_t - P_{t-1})$$
- The daily VMs are directly relevant for payment, **without taking into account an initial margin.**
- Cumulative VM since the start of the transaction determines the minimum liquidity requirement

The procurement path is divided into three sub-portfolios according to the customer segments

- **LaFri** (local energy suppliers (municipal utilities) - Long-term focus)
 - Predominantly loyal customer base (70%), with only 10% being highly price-sensitive.
 - Long-term procurement (3 years) for loyal customers, shorter terms for others.

- **MiFri** (Regional Energy-Supplier – Mixed-term Focus)

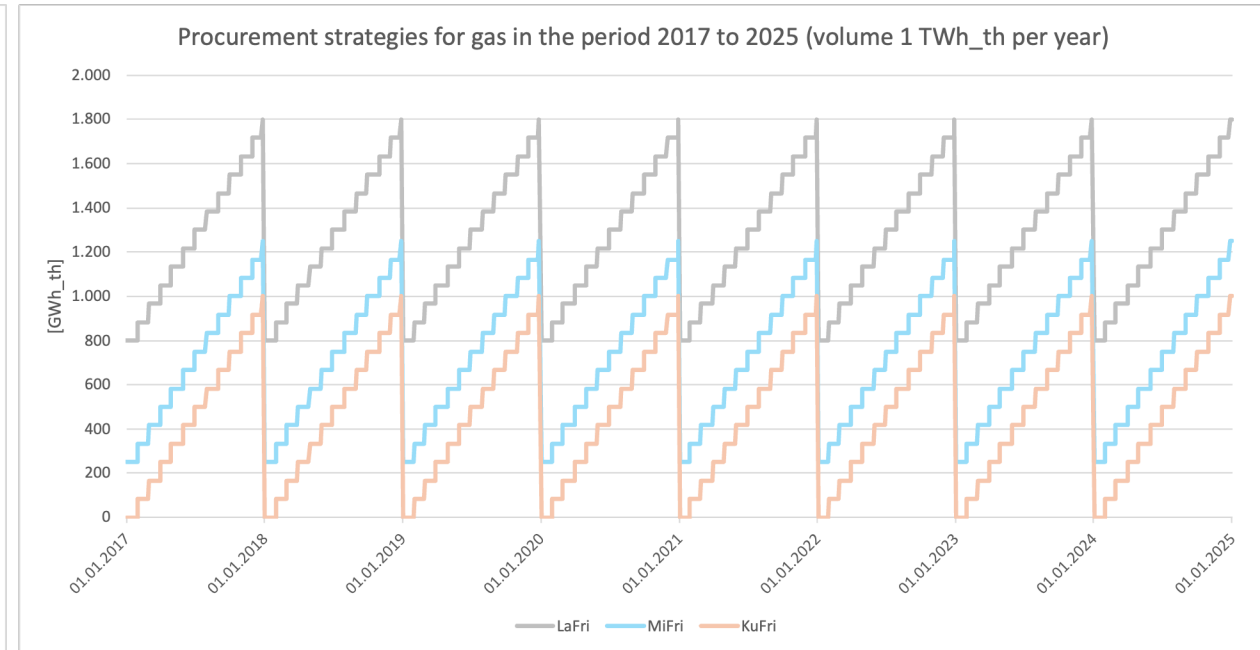
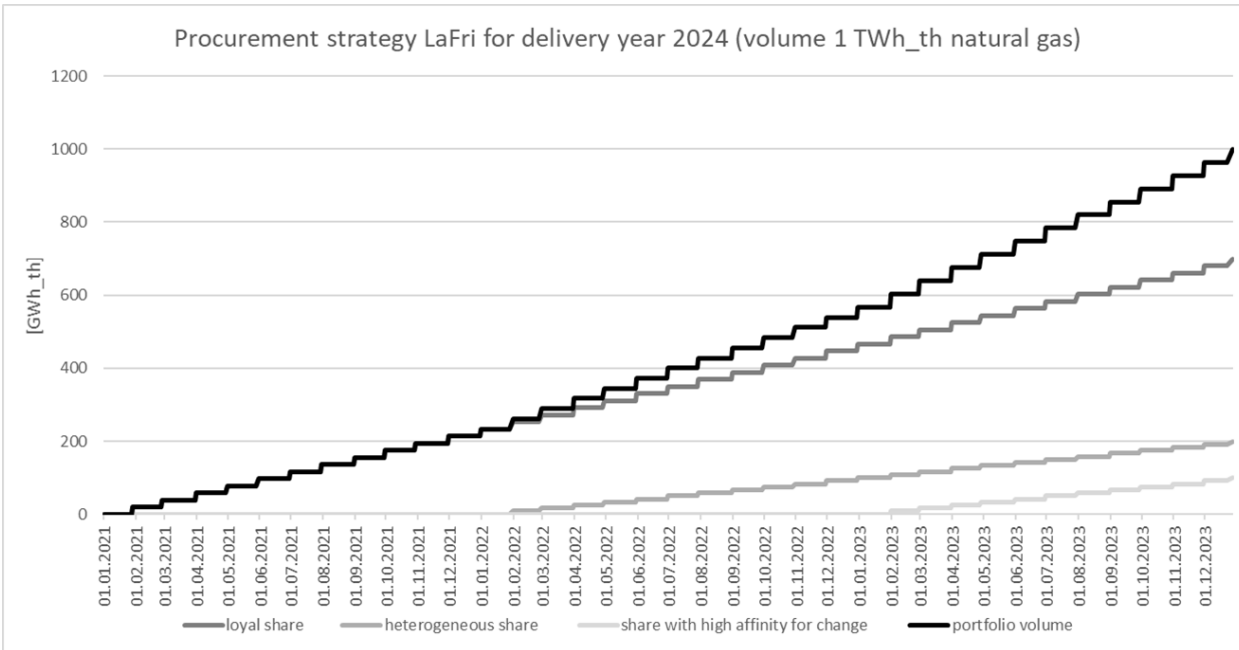
- More diverse customer base, with 50% moderately loyal and 50% highly price-sensitive.
- Procurement is shorter-term compared to LaFri due to higher customer volatility.

strategy	Procurement share over three years before delivery year [%]	Procurement share over two years before delivery year [%]	Procurement share over one year before delivery year [%]
LaFri	70	20	10
MiFri	0	50	50
KuFri	0	0	100
Customer portfolio	loyal share	heterogeneous share	share with a high affinity for change

- **KuFri** (Energy Discounters – Short-term Focus)

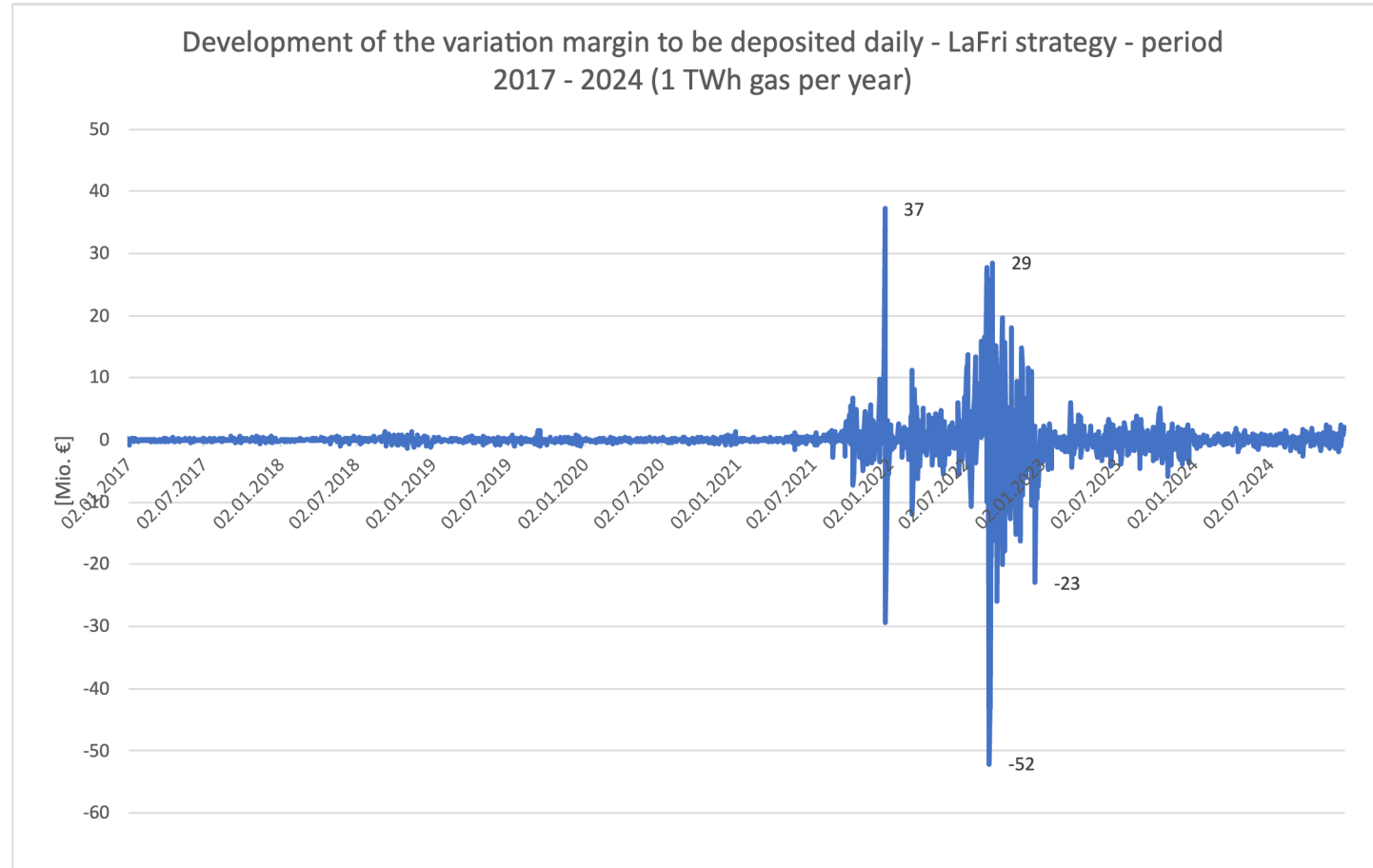
- Primarily targets highly price-sensitive, switching-prone customers.
- No long-term procurement; energy is sourced strictly short-term (max. 12 months)

Segmented Procurement by Customer Groups (Left) and Sawtooth Pattern Over Time (Right)



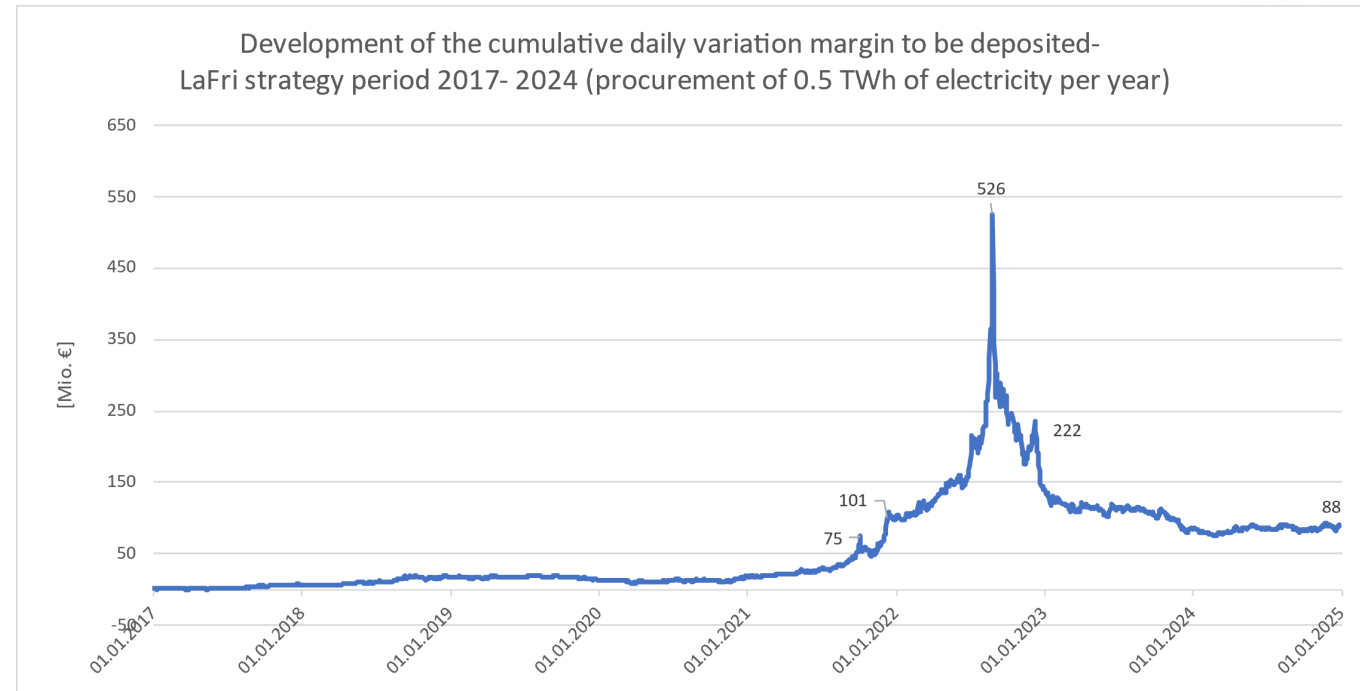
Strategy	Minimum permanently committed portfolio volume
LaFri	800
MiFri	250
KuFri	0

A first look at the development of daily VMs shows the volatile swings in the wake of the energy crisis



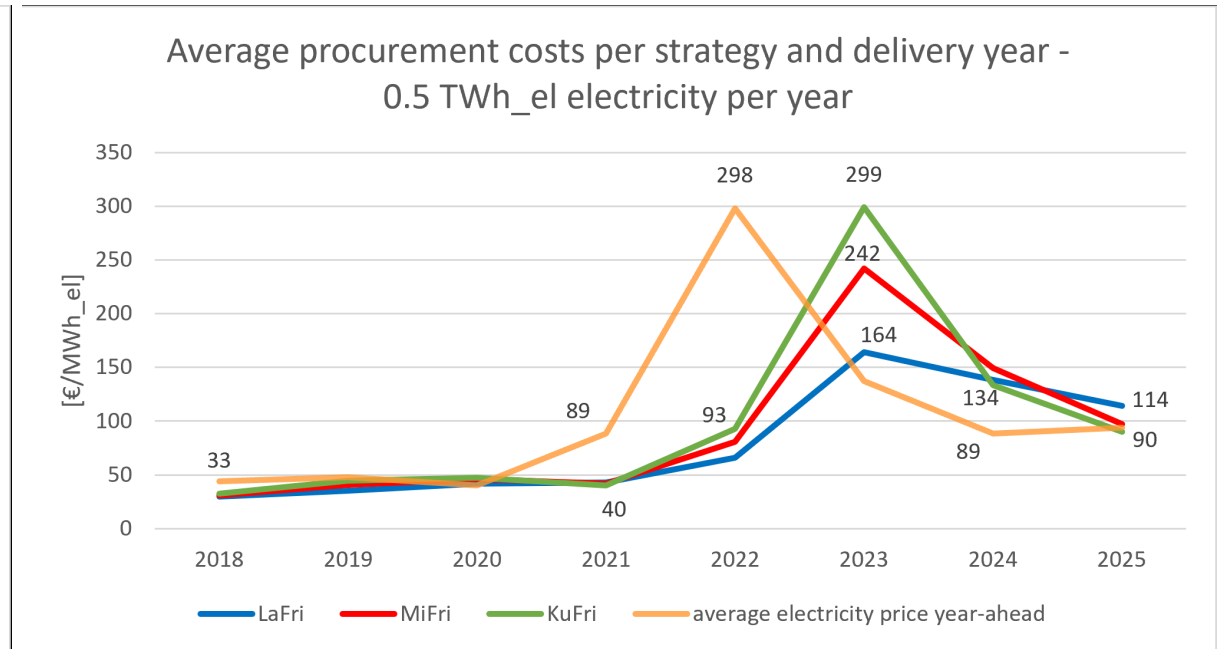
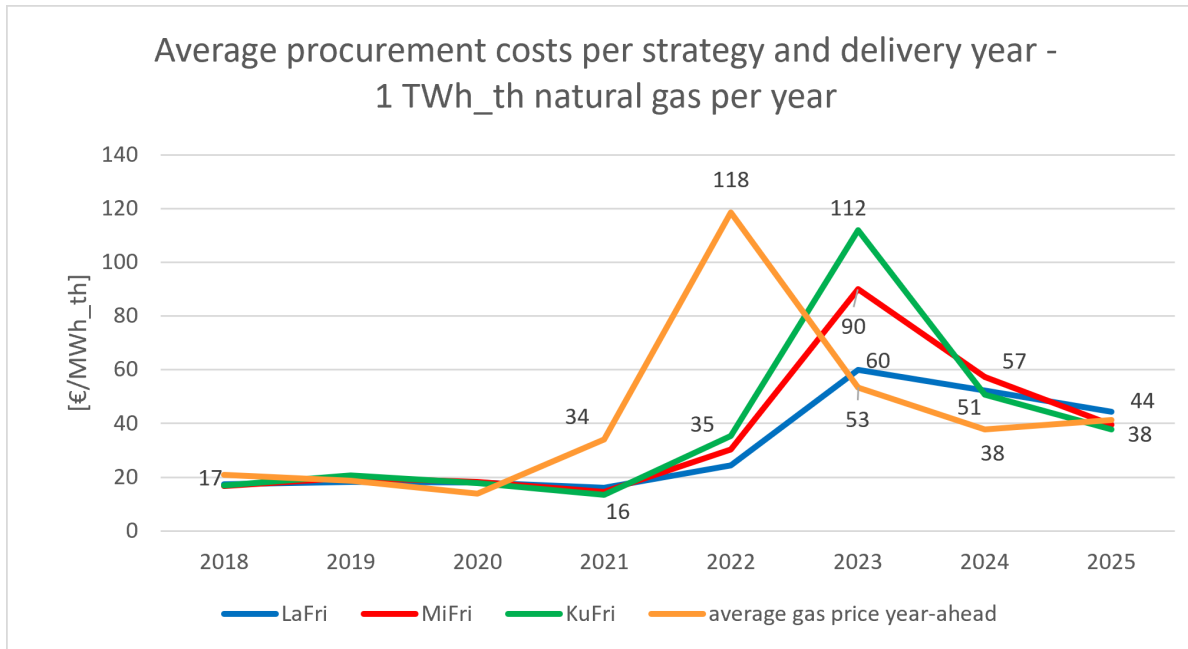
The cumulative VM of an energy distribution company over the energy crisis is massively positive

- Positive cumulative VM means credit by clearing house, negative cumulative VM means additional financial liquidity
- The procurement of 0.5 TWh electricity while pursuing the LaFri strategy resulted in a maximum positive cumulative VM of around EUR 526 million
- procurement of gas led to slightly negative figures (€ - 5 million) for a short period over the period under review, meaning that additional liquidity was required
- Simultaneous procurement of electricity (0.5 TWh) and gas (1 TWh) with the same strategy would have resulted in a positive cumulated VM of around EUR 900 million



Cumulative variation margin [in million €]						
	gas (1 TWh_th)			electricity (0.5 TWh_el)		
strategy	LaFri	MiFri	KuFri	LaFri	MiFri	KuFri
Min.	-5	-3	-3	-1	0	0
Max.	373	253	186	526	385	295

In addition to the development of margin calls, we also calculated average procurement costs as part of the simulation



- Until 2021, procurement costs were similar across all strategies but doubled in 2022 due to rising wholesale prices, peaking in 2023 and heavily impacting short-term procurement (KuFri).
- The extreme cost increase in 2023 led to household tariff reductions and the insolvency of short-term-focused energy discounters that couldn't pass on the rising costs.
- As wholesale prices declined in 2023, procurement costs for 2024 and 2025 decreased, making short-term procurement (KuFri) the most cost-effective option for 2025.

A brief look into the future

- Energy discounters with short-term procurement are re-entering the market, benefiting from lower wholesale prices and offering competitive tariffs.
- Household switching rates for gas and electricity rose significantly in 2023 after a decline in 2022.
- Suppliers with long-term procurement strategies still carry higher-priced contracts from 2022 and 2023, limiting their ability to offer lower prices.

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Thank you for your attention!

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