# Who Benefited from Relief? Distributional and Justice Impacts of Germany's 2022/23 Energy Crisis Policies

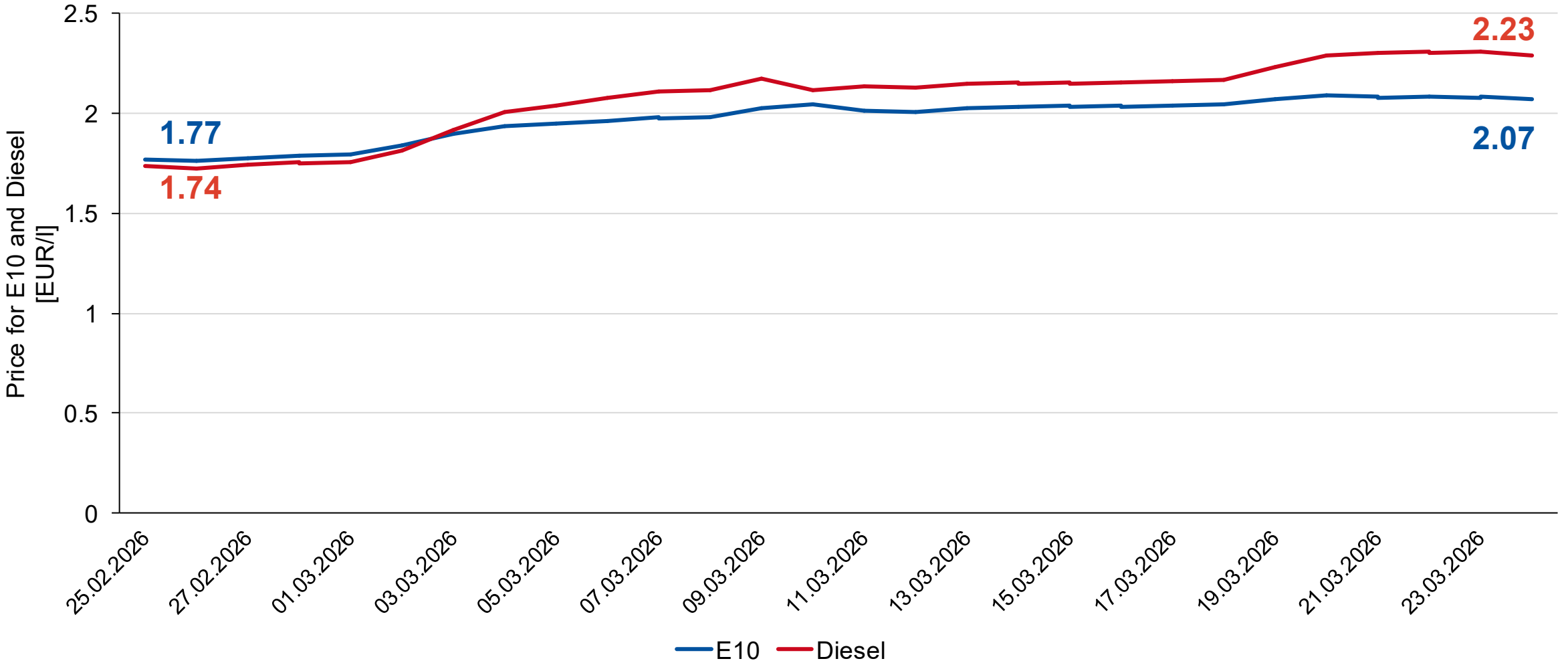
ENERDAY 2026

Karl Seeger, Jan Priesmann, Aaron Praktiknjo
27 March, 2026

FCN | Future Energy Consumer Needs and Behavior
E.ON Energy Research Center
RWTH AACHEN UNIVERSITY

# Introduction | Motivation






Source: ADAC



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# Introduction | Motivation


Effekte einer Spritpreisbremse

## Reiche hätten am meisten von Tankrabatt

Die Preissprünge an der Zapfsäule beleben die Debatte über eine neue Spritpreisbremse. Forscher der RWTH Aachen haben in Modellrechnungen ermittelt, wer profitieren würde – und sprechen von einem »Irrweg«.

Von **Alexander Preker**
06.03.2026, 16.22 Uhr

SVEN SCHULZE

## CDU-Ministerpräsident fordert neuen Tankrabatt

15.03.2026, 04:02 Lesezeit: 3 Min.

**„Vom Tankrabatt haben die profitiert, die große und teure Autos fahren", sagt die Linke**

Von **Kevin Culina**
Redakteur Innenpolitik

Stand: 15.03.2026 | Lesedauer: 5 Minuten

Source: Bloomberg, Spiegel, faz, Handelsblatt



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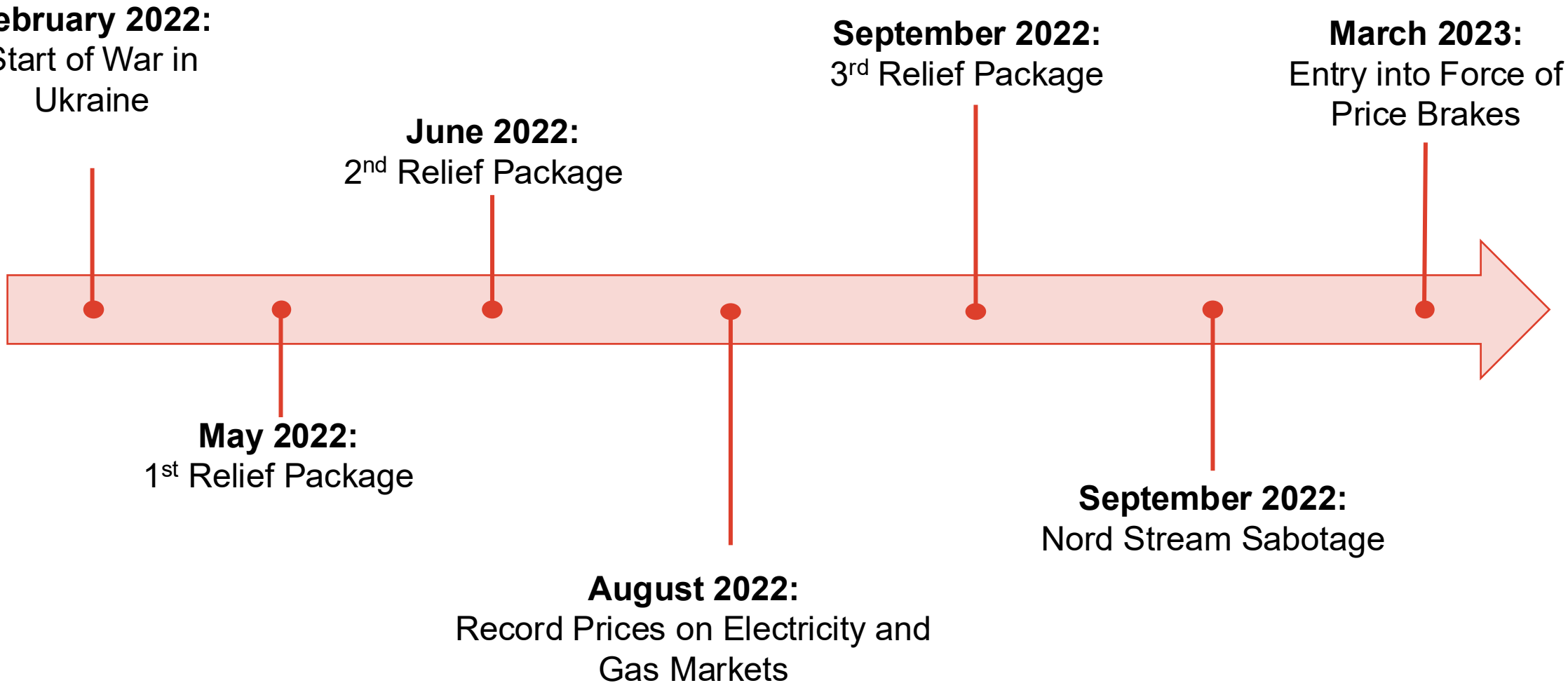
# Introduction | Energy Price Crisis 2022/23



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# Introduction | Research Questions

1. How were the fiscal benefits distributed across the income spectrum?

2. What role did behavioral responses to energy prices play in mitigating hardship and emissions?

3. How effective were individual policy instruments, and what trade-offs emerged between social protection and environmental objectives?


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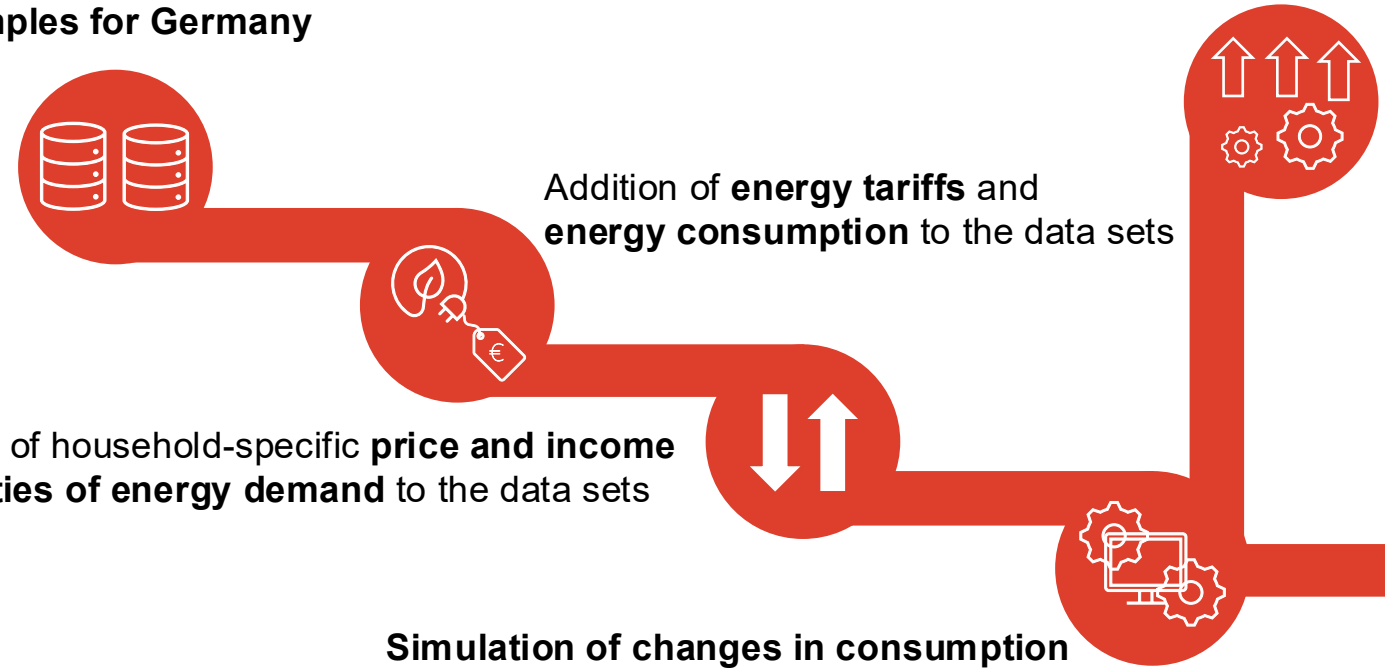
# Methodology | Microsimulation Model



**Household samples for Germany**
- EVS (FDZ)
- SOEP (DIW)
- MOP (KIT)



Addition of **energy tariffs** and **energy consumption** to the data sets

Addition of household-specific **price and income elasticities of energy demand** to the data sets

**Simulation of changes in consumption**
- In response to changes in prices and income
- Taking into account changes in technological equipment in households

**Exogenous changes**
- Changes in energy tariffs
- Subsidies for investments in energy efficiency and technologies
- Changes in household income
- Changes in the availability of energy-consuming appliances

**Assessment**
- Distributive justice
- Poverty & energy poverty
- Ecological sustainability

Source: Priesmann (2024)



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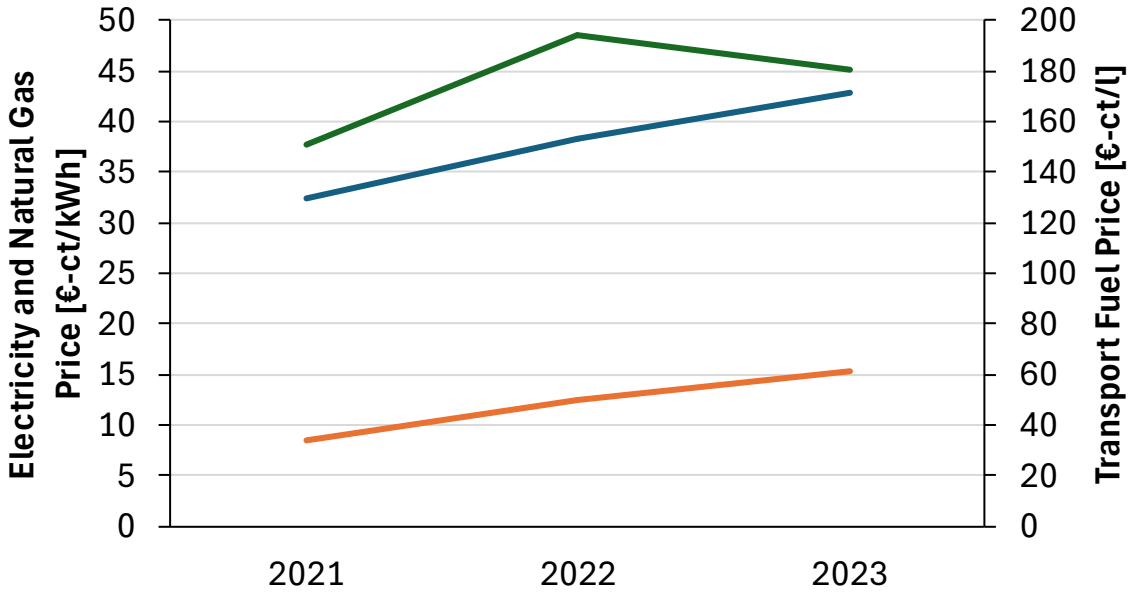
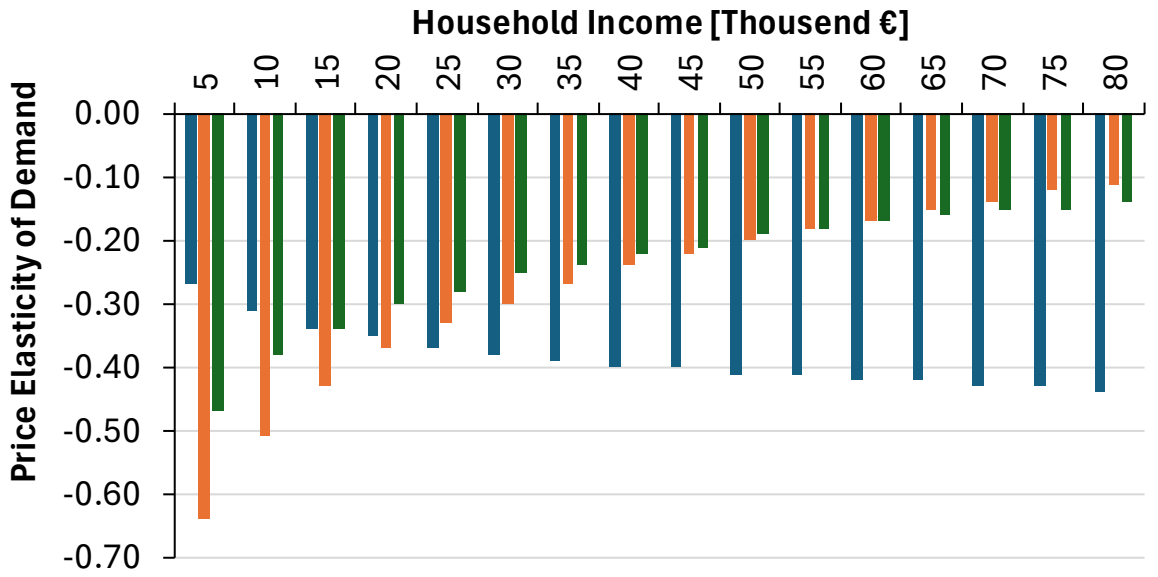
# Case Study | Short-Term Relief Measures in the Energy Price Crisis I



## Energy Carrier Prices




## Elasticity




Electricity Heating Mobility

Source: Seeger et al. (forthcoming)



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# Case Study | Short-Term Relief Measures in the Energy Price Crisis II



| Relief Measure | Description | Year |
|---|---|---|
| Energy Allowance | Gross payment of 300 € to all tax-liable employees. | 2022 |
| Child Bonus | 100 € per child was universally distributed to all households receiving Kindergeld | 2022 |
| Fuel Tax Rebate | temporary reduction in excise taxes on petrol and diesel from June to August 2022, amounting to approximately 30 €-ct/l for petrol and 14 €-ct/l for diesel | 2022 |
| Gas Price Cap | limited gas prices to 0.12 €-ct/kWh for up to 80% of each household's 2021 consumption, with market prices applied to any usage above this threshold | 2023 |
| Housing Benefit Reform | expanded eligibility by raising income limits and adding a heating cost component. | 2023 |

Source: Seeger et al. (forthcoming)



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# Case Study | Short-Term Relief Measures in the Energy Price Crisis III

## Scenarios for Microsimulation

| Scenario | Price | Policy | Behavior |
|---|---|---|---|
| Baseline | 2021 | x | x |
| Price Shock | 2022/23 | x | x |
| Price Shock + Policy | 2022/23 | √ | x |
| Price Shock + Policy + Behavior | 2022/23 | √ | √ |

Source: Seeger et al. (forthcoming)



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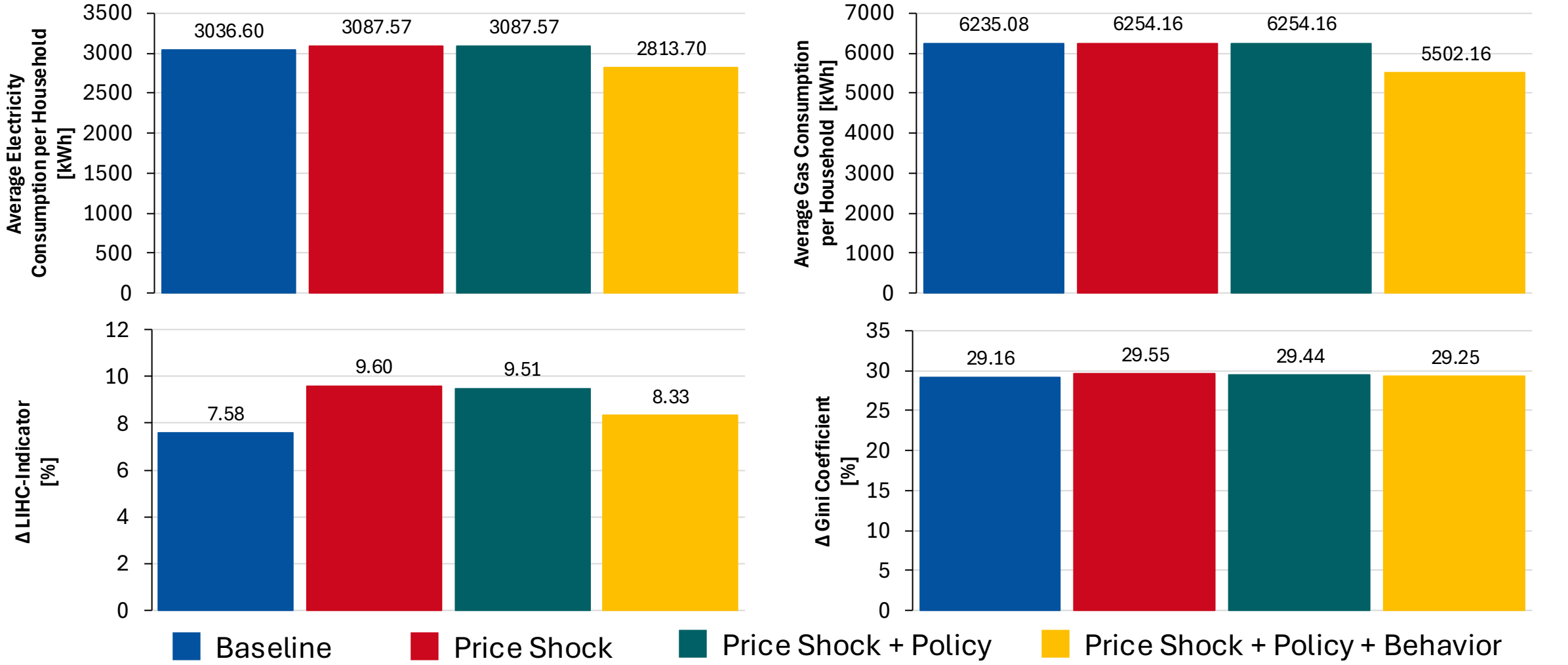
# Case Study | Short-Term Relief Measures in the Energy Price Crisis IV



**In 2022:**




Source: Seeger et al. (forthcoming)



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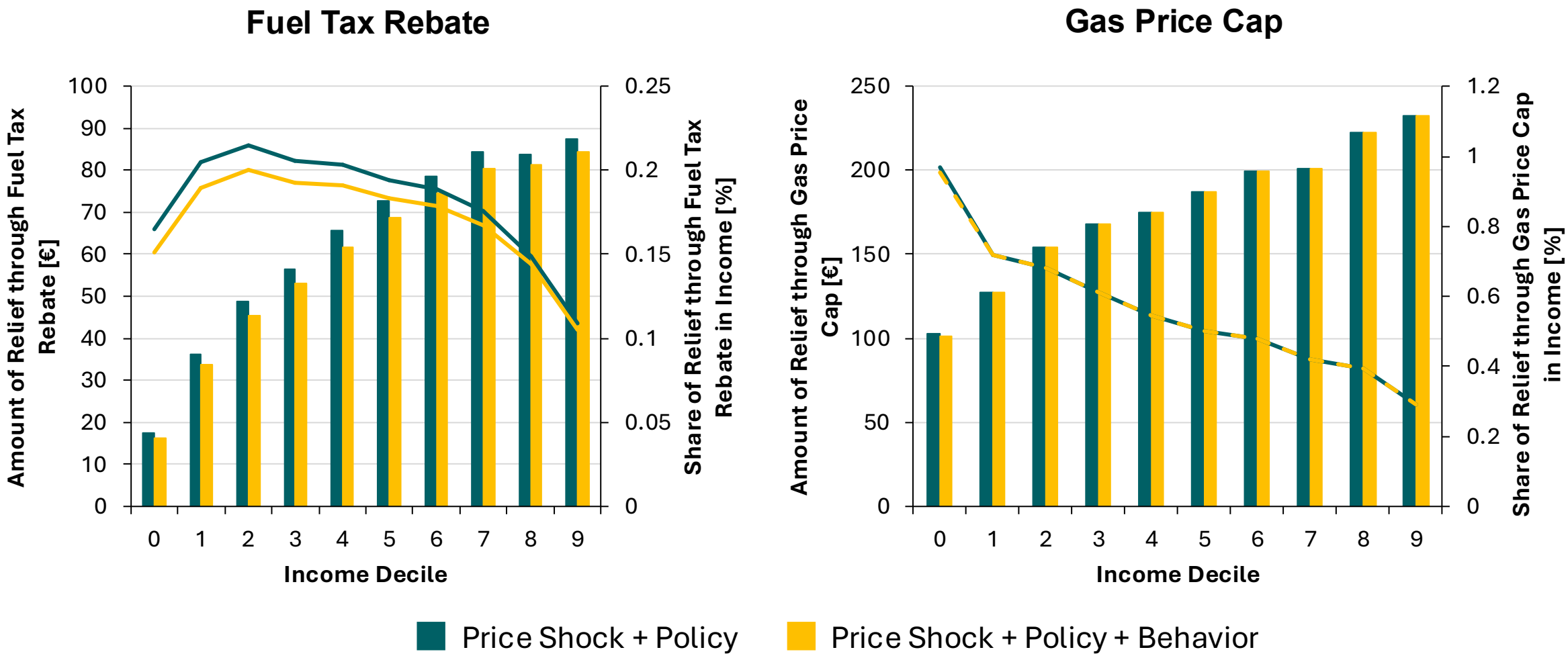
# Case Study | Short-Term Relief Measures in the Energy Price Crisis V






Source: Seeger et al. (forthcoming)



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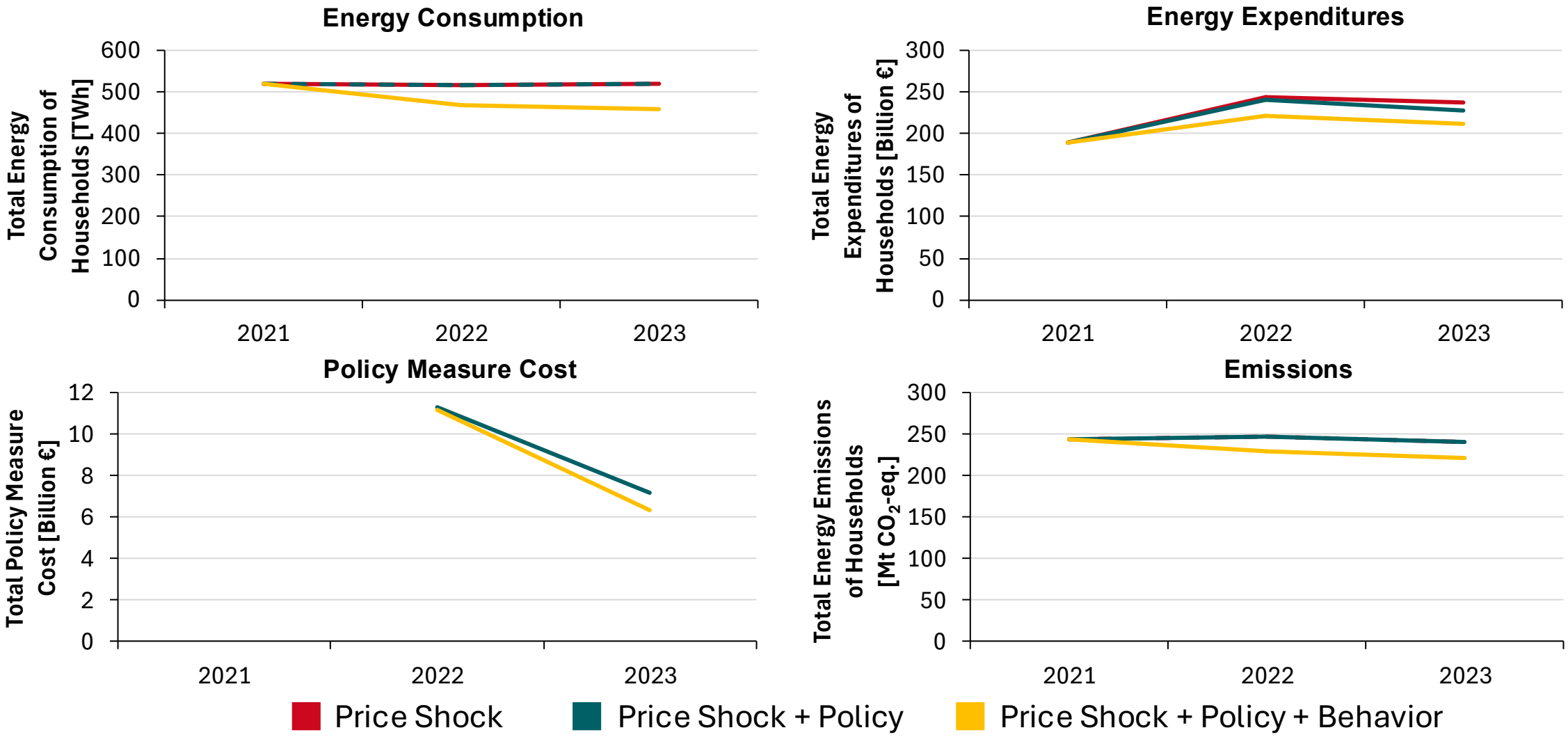
# Case Study | Short-Term Relief Measures in the Energy Price Crisis VI






Source: Seeger et al. (forthcoming)



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# Conclusion



1

How were the fiscal benefits distributed across the income spectrum?

» **Measures have relieved the burden on households, but the cost-benefit ratio is not satisfactory (“Gießkannenprinzip”)** «

2

What role did behavioral responses to energy prices play in mitigating hardship and emissions?

» **Behavioral adjustments by households play a more important role than the measures; price signals indicating scarcity should be maintained as much as possible** «

3

How effective were individual policy instruments, and what trade-offs emerged between social protection and environmental objectives?

» **Targeted measures were more effective in reducing energy poverty, but all measures involved a trade-off with emissions** «



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# Thank you for your attention!

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# Sources


1. ADAC, „Ölpreise steigen wegen Krieg in Nahost: Tanken wird teurer“. Zugegriffen: 5. März 2026. [Online]. Verfügbar unter: https://www.adac.de/news/spritpreise-steigen-durch-krieg-in-nahost/
2. K. Seeger, J. Priesmann, A. Praktiknjo, „Too Cold to Change, Too Rich to Care? How Relief Measures Shaped Energy Justice in Germany’s 2022/23 Crisis”, forthcoming



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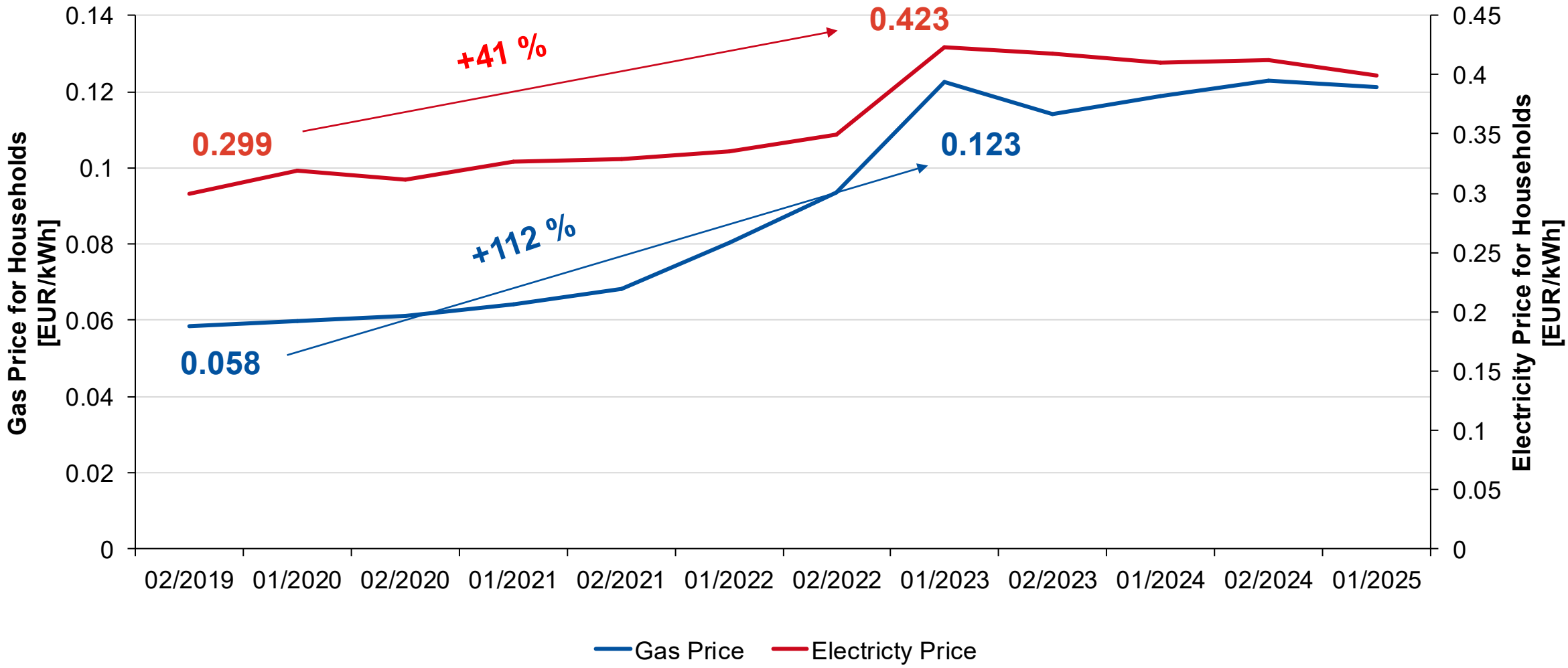


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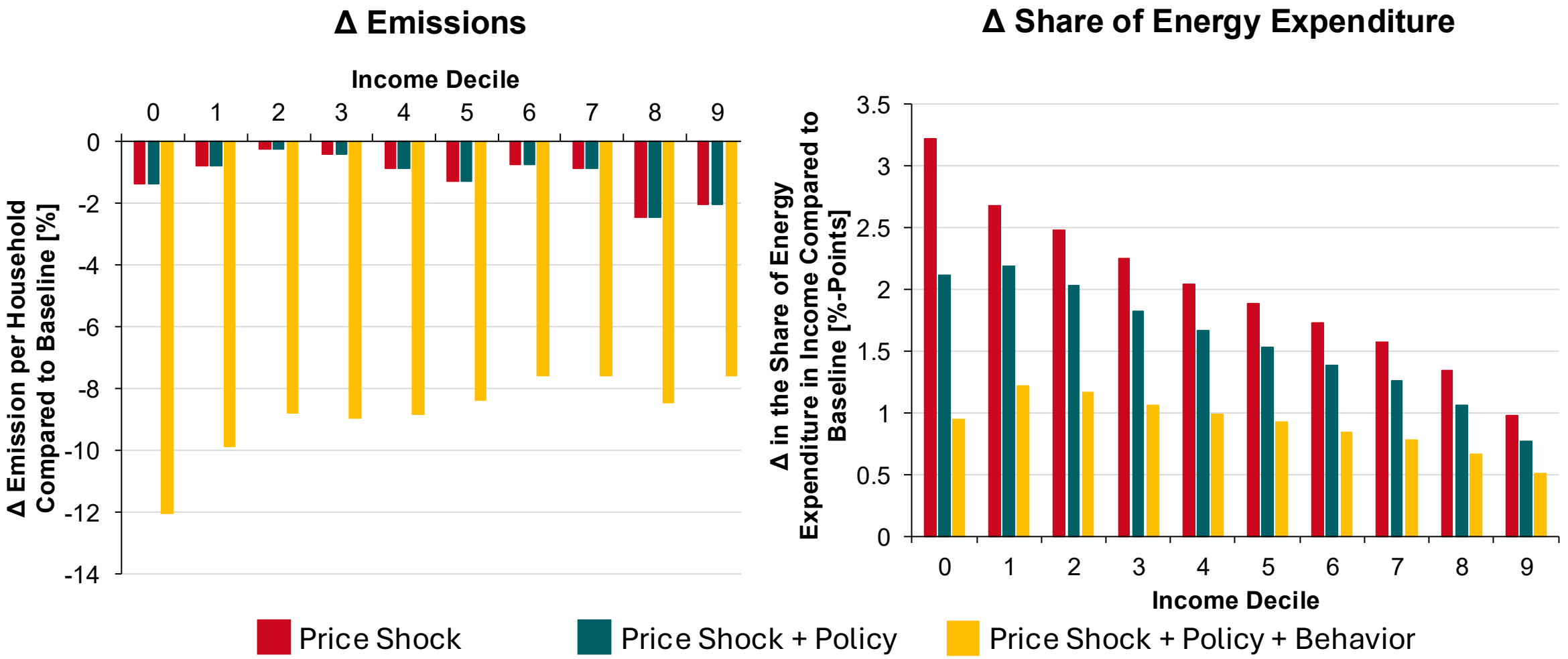


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