



AMIRIS – the open Agent-based Electricity Market Model

Assessing Market Perspectives for Energy Technologies

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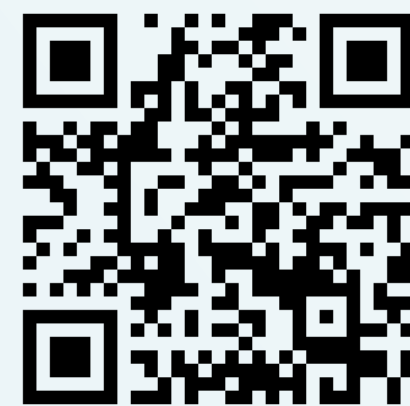
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The Model

- Simulates the **interplay** of **markets** and **policies**
- Models decisions from an **actor perspective** in **high-detail**
- Assesses scenarios for **transnational** electricity systems
- Creates insights for **academia** and **industry**
- Achieves results **fast**
- Supports sensitivity-analysis and **extensive parameter scans**
- Is **easily customised** and extended
- Provides **flexible** API for **coupling** with other models

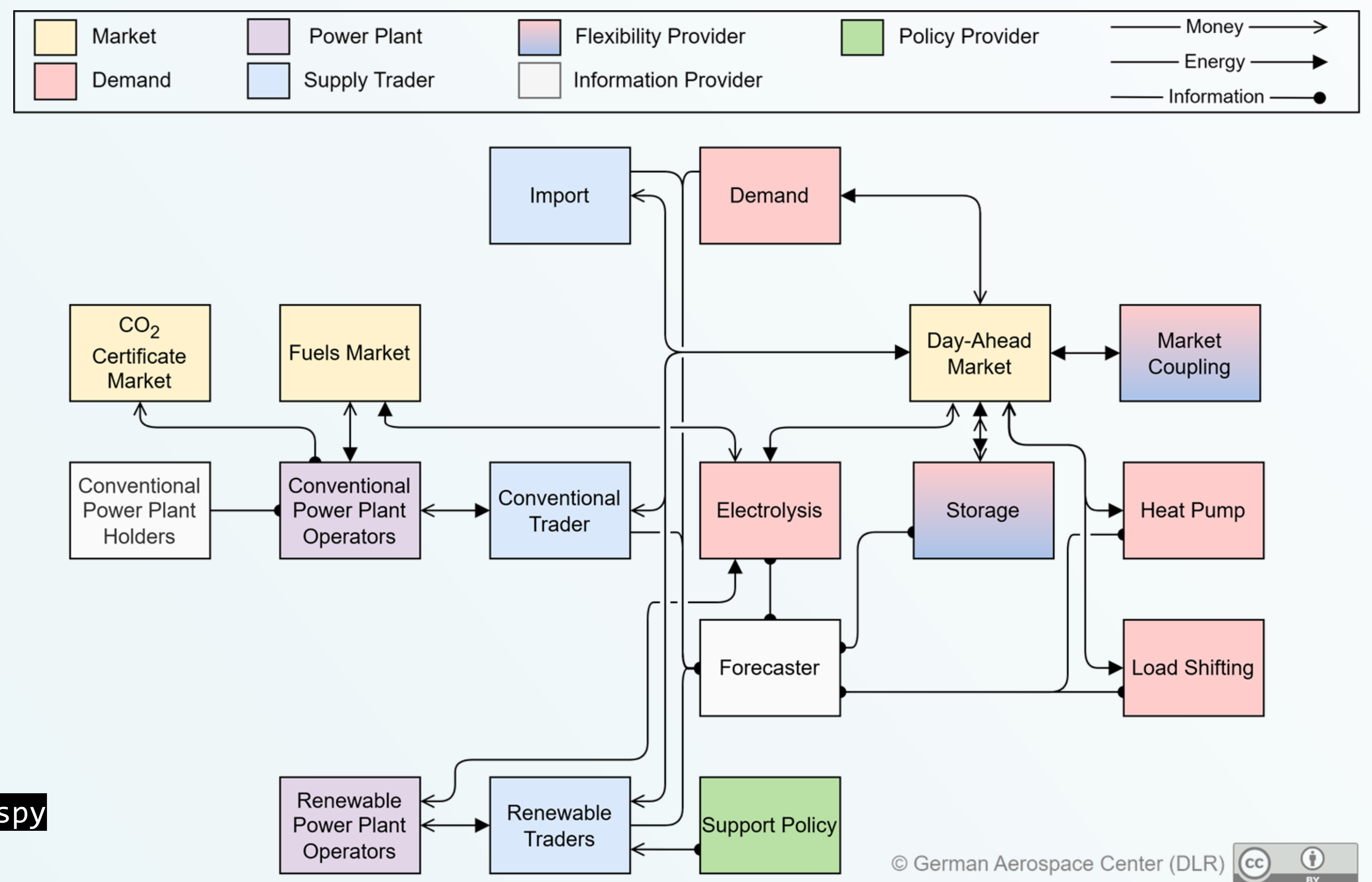
High Software Standards

REUSE **compliant** license Apache 2
pipeline **passed** issues **183 closed**
docs **wiki** JOSS **10.21105/joss.05041**



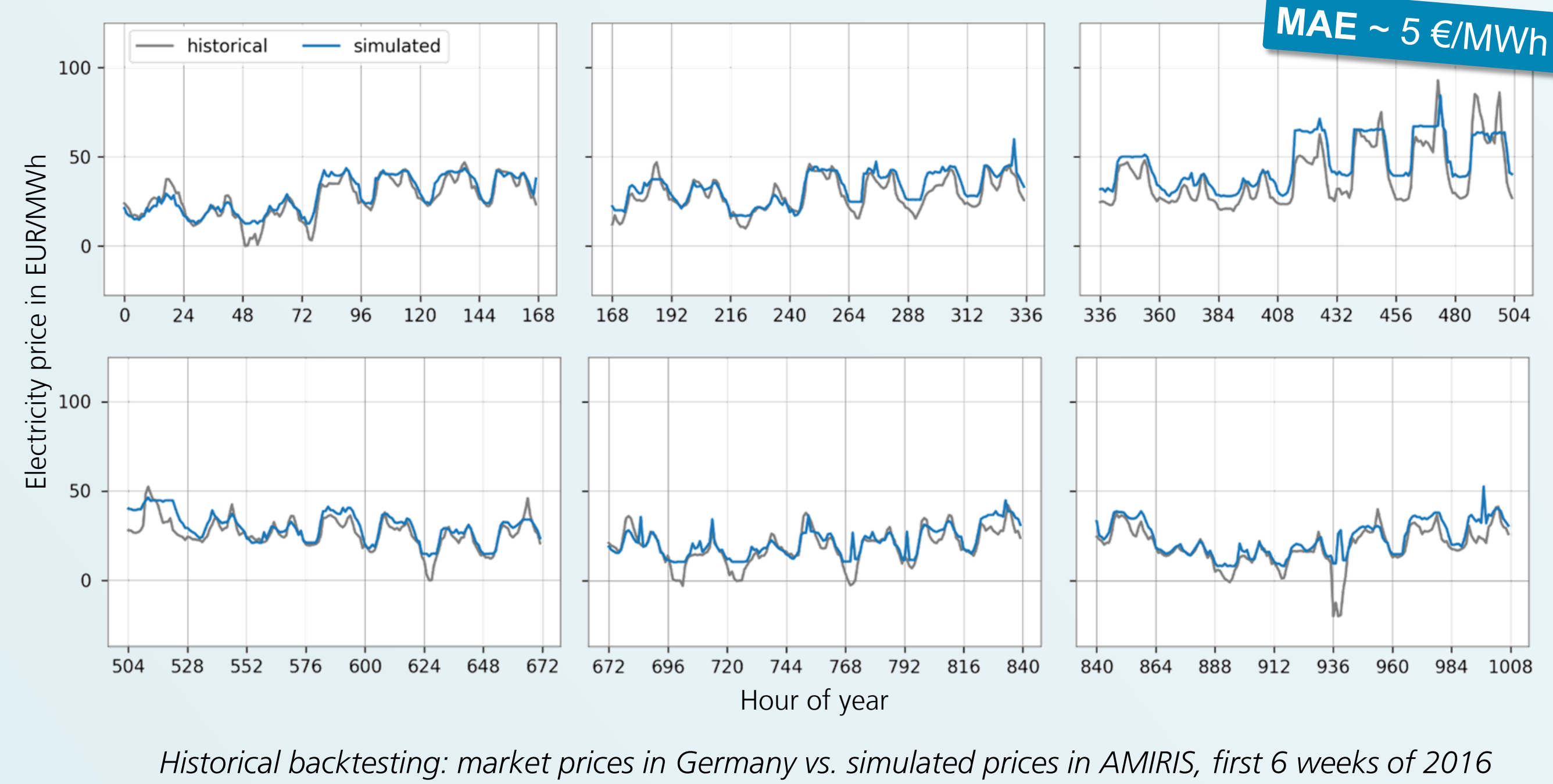
First Result in under 10 Minutes

- Get Python wrapper *AMIRIS-Py*
`> pip install amirisp`
- Download AMIRIS (and its examples)
`> amiris download`
- Run an example scenario
`> amiris run -s scenario.yaml`



Applications

Electricity Prices

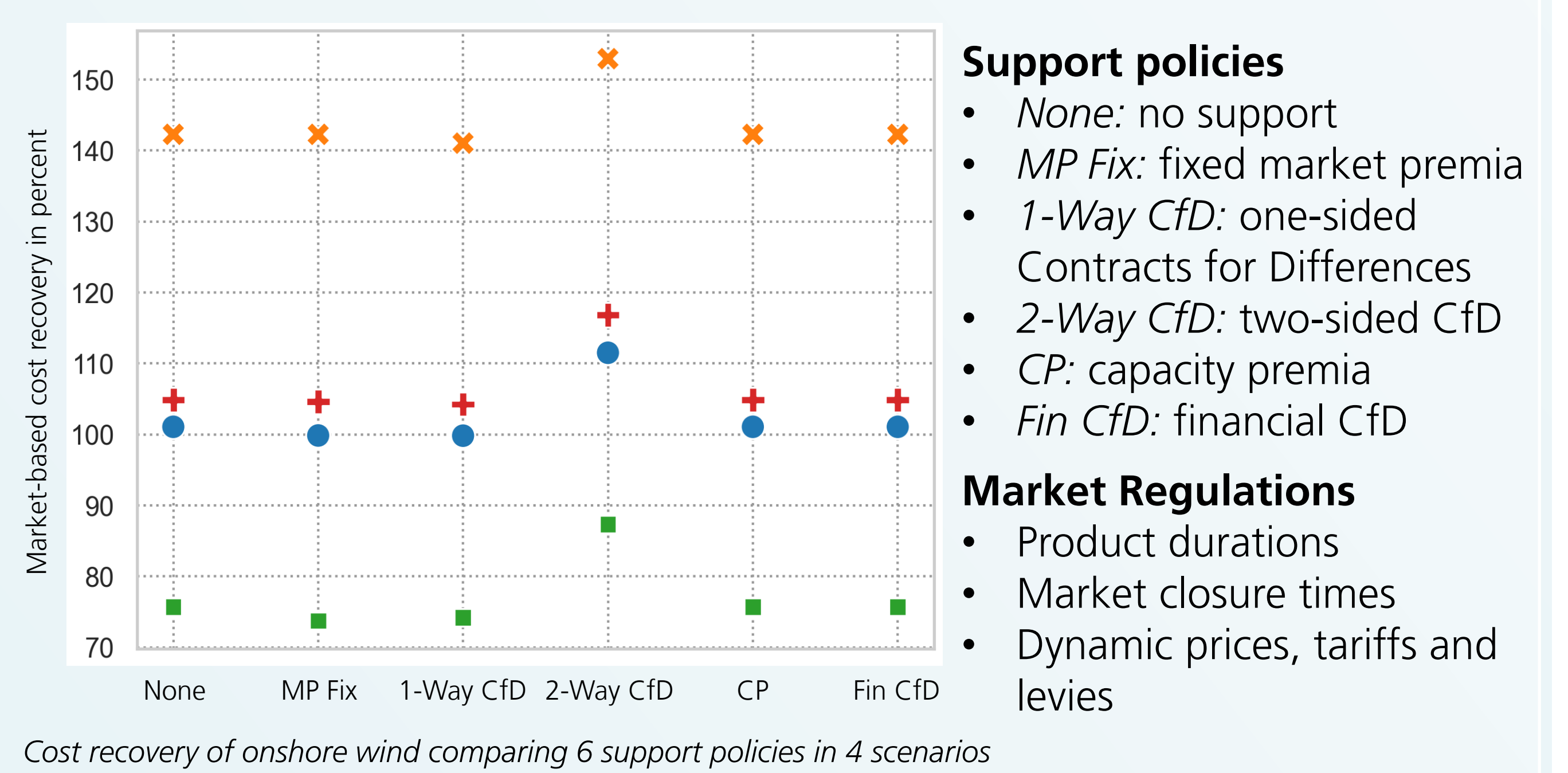


High-precision bottom-up modelling of electricity prices!

<https://doi.org/10.1109/EEM60825.2024.10609021>

Policy Impacts

Project TradeRES

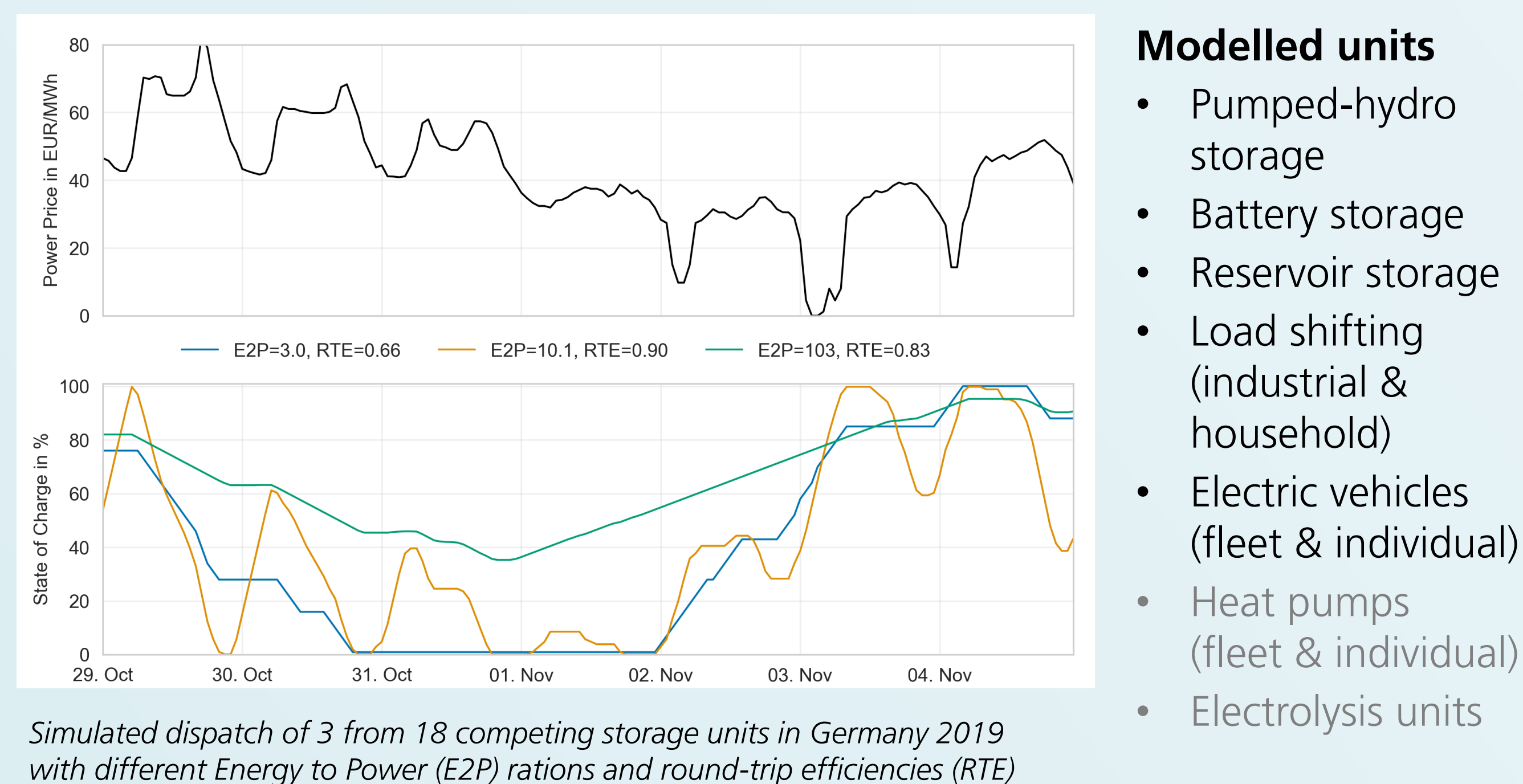


Easy assessment of policy changes!

<https://doi.org/10.1109/EEM60825.2024.10608886>

Flexibility Competition

Project Man0EUvRE

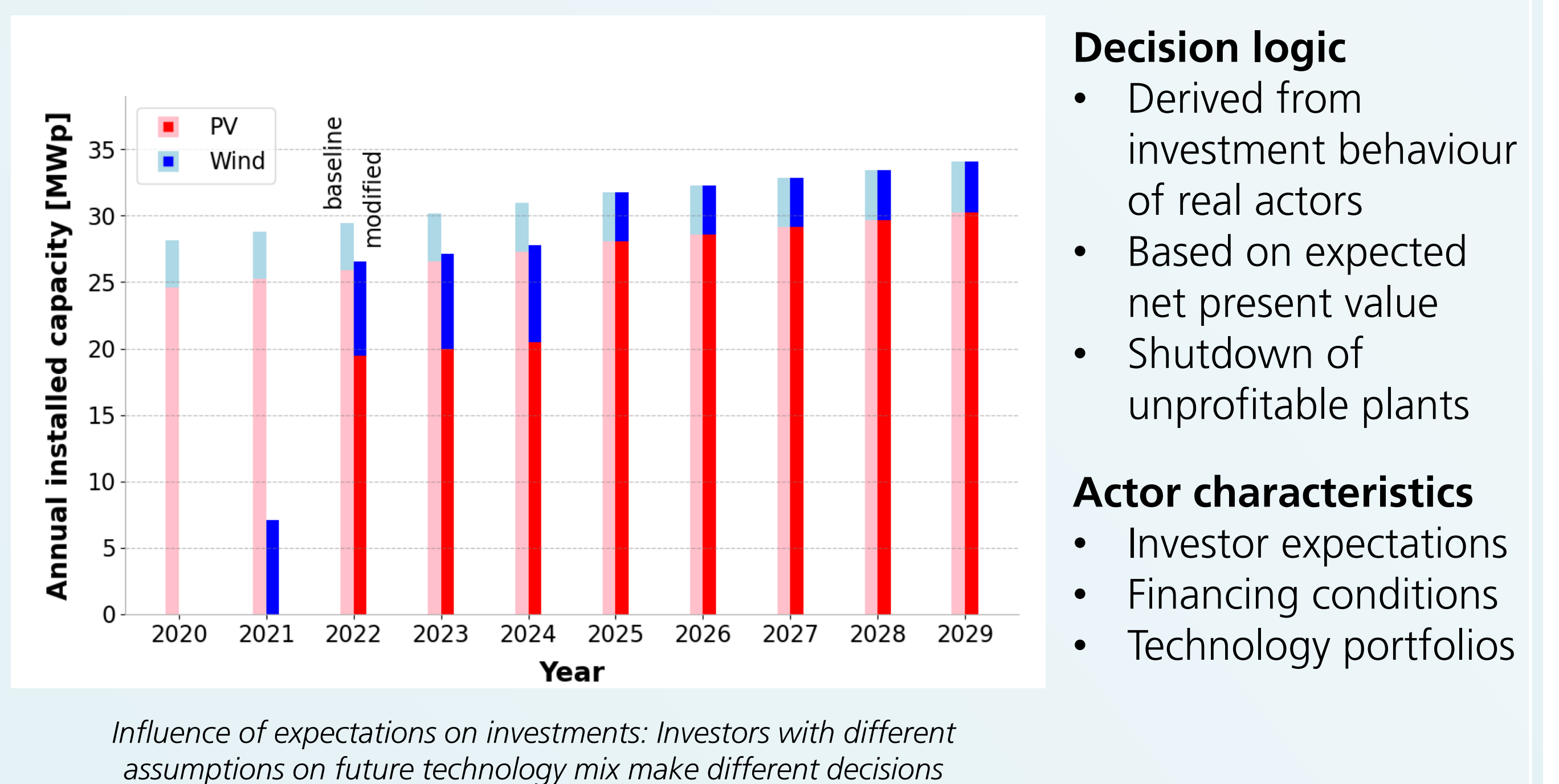


Model **market dynamics** emerging from competing flexibilities with individual **forecast uncertainties**!

<https://zenodo.org/records/1708787>

Investment Decisions

Project InvestAgent



Simulate **capacity mix** for **long-term** transition pathways resulting from business decisions!

<https://doi.org/10.1109/EEM64765.2025.11050320>

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