Blockchain-based self-consumption optimization and energy trading in Renewable Energy Communities

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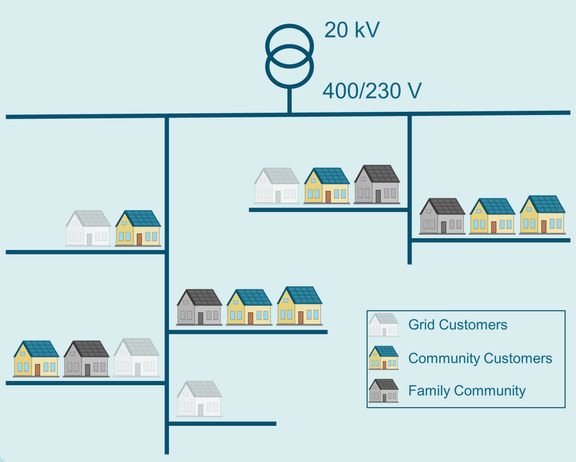
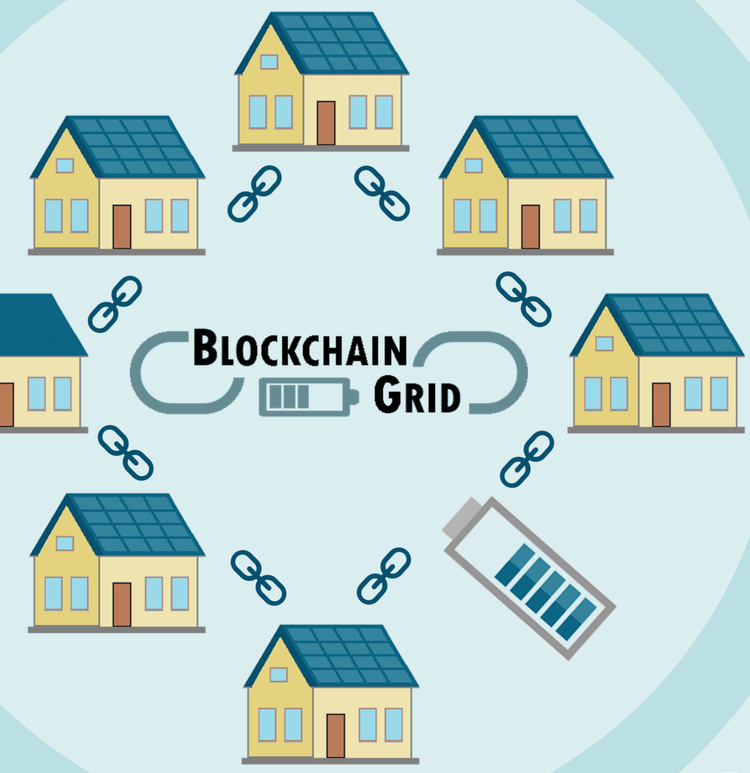
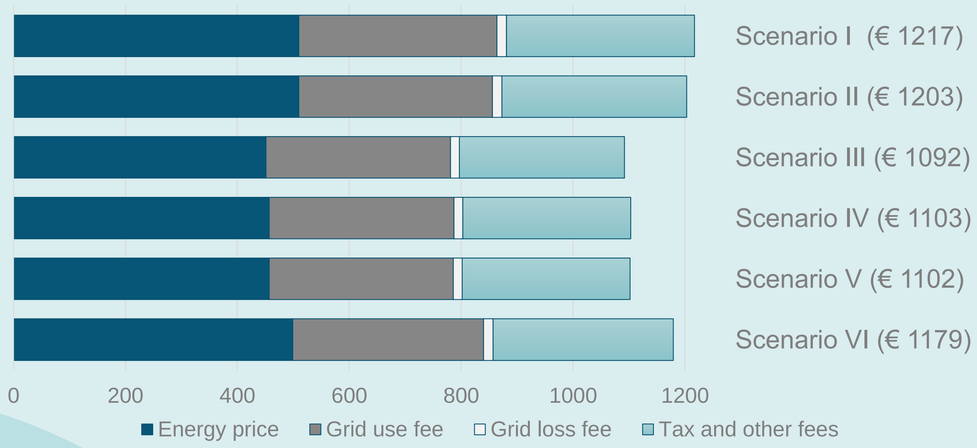
Introduction

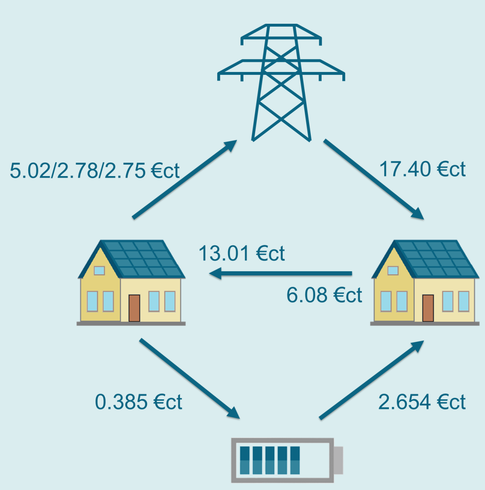
Renewable Energy Communities aiming to produce, consume, store, and share energy and to increase self-consumption of locally generated energy. Within the Austrian research project *Blockchain Grid*, different Blockchain-based REC use cases are implemented.



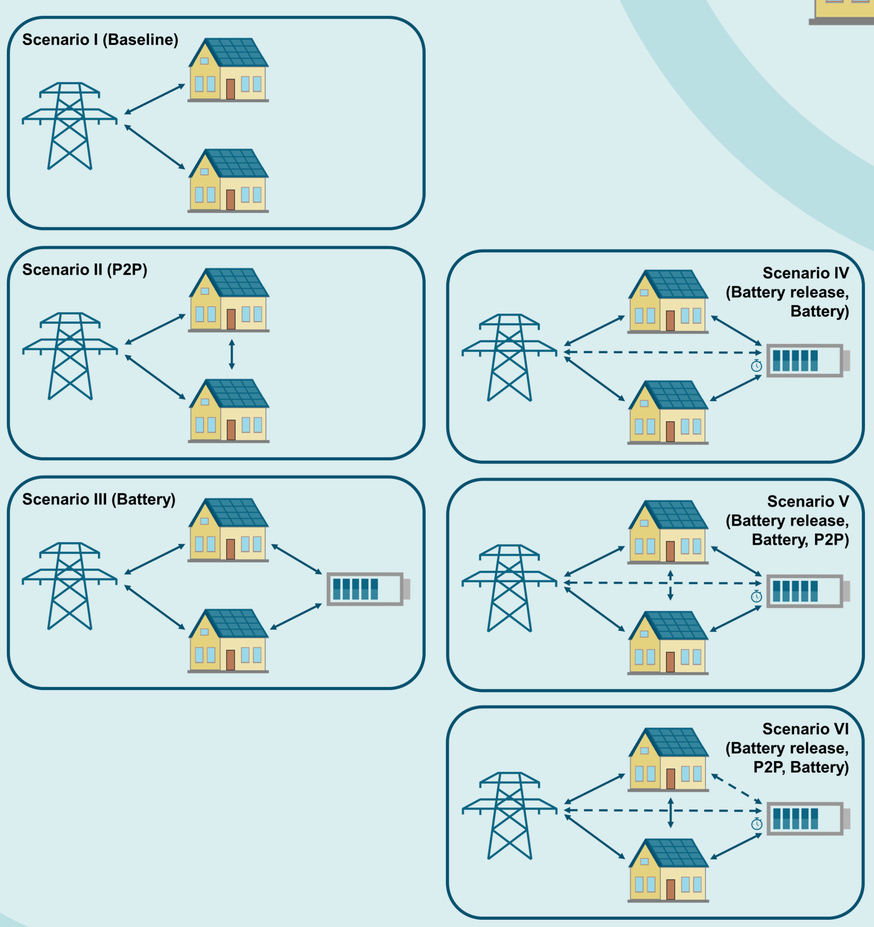


Results





Scenarios



Conclusion & Outlook

Peer-to-peer energy trading
Self-consumption optimization
Blockchain-based solution for RECs
Potential of 10 % total cost savings (avg.)
Scalability and Replicability Analysis
Comprehensive field validations

Acknowledgements

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