

Accelerating carbon neutrality



Team background

- **TEAM:** Rebase and Grid Singularity developed collaborative solution in the Odyssey Momentum Hackathon.
- **PRODUCT:** Simulate and optimize distributed energy resources, operate local energy exchanges in a partner city, and create interfaces to a data and algorithm marketplace.
- **CHALLENGE:** Development of Renewable Energy, Energy Efficiency.



<https://www.rebase.energy/>



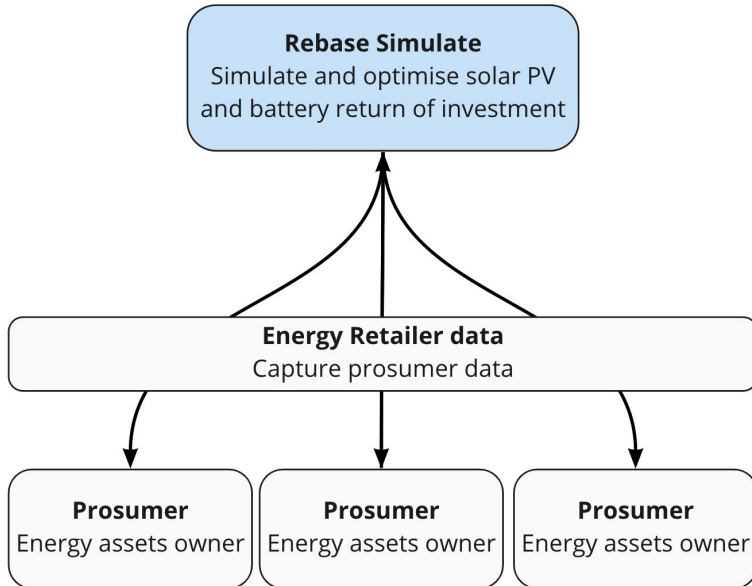
<https://gridsingularity.com/>

Phase 2 plans and lessons learned

- **LESSON LEARNED:** Dynamic energy modelling and reliable data sources are needed for accurate analysis and grid optimization, Largest CO2 savings in Nordic power system is from renewable heat generation, Secure and privacy preserving data sharing in cities is a priority and requires thoughtful design
- **PLANS AHEAD:** Scale up current CO2 simulations to a city level, Work closely with cities on data and logistical requirements to deploy a local energy market simulation, enabling communities to trade green energy. Create interfaces to a decentralized data and algorithm marketplace to allow cities to optimise their renewable-based energy grids
- **UPCOMING CHALLENGES:** Data availability and privacy, Regulatory compliance of local energy trading, Deeper understanding of city end-user perspective.

Next steps

1 Offline DER Simulation (Optimise DER investment ROI)



2 Offline Exchange Simulation (Simulate Local Energy Communities)

