zkDELX

A zk-based Decentralized Electricity Exchange Market

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Team

- Stephen Fan https://github.com/CaixiangFan
  Product manager/backend dev/Integration

- Frank He https://github.com/tsubasakong
  Smart contract dev/Integration

- Aziz Hassine https://github.com/c99tn
  Frontend dev

What Factors Stop Electrical Vehicles Growing?

- **Charging infrastructure**
- Electric vehicle performance
- Availability
- Affordability

What if we share electricity with others?

Charging at Home Is the Most Affordable and Convenient
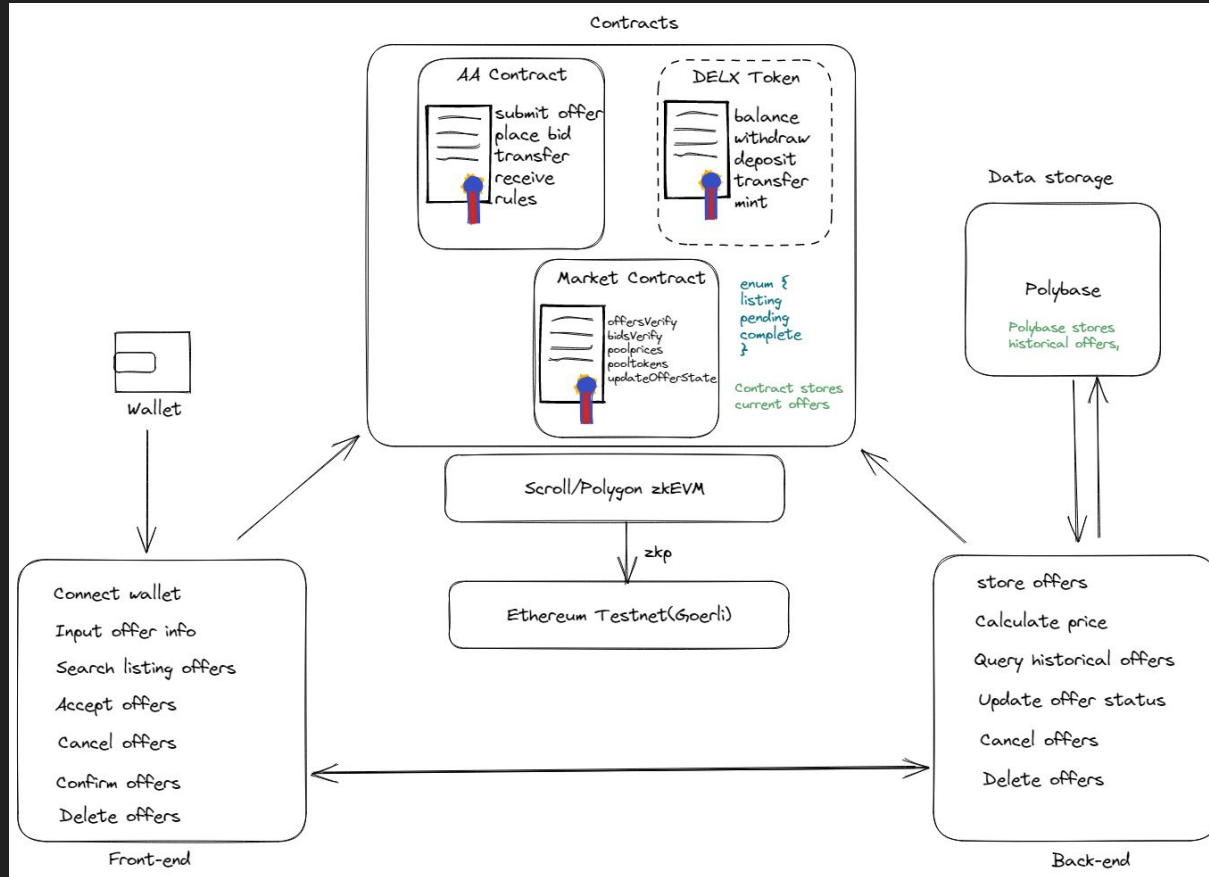

Alice charges at Bob's house

Bob charges Tesla at Charlie's house

Charlie charges at Alice's house

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POST `/storeoffer` Store an offer to Polybase

GET `/searchoffers/{buyerAccount}/{location}/{amount}/{price}` Queriy listing offers from Polybase

GET `/queryhistoricaloffers/{myaccount}` Queriy historical offers from Polybase

POST `/acceptoffer` Accept a listing offer

POST `/completeoffer` Complete a listing offer

POST `/canceloffer` Cancel a pending offer

POST `/expireoffer` Expire a pending offer

POST `/deleteoffer` Delete a listing offer

Schemas

Offer >

UpdateOffer >

Find an offer

ⓘ

~0.10 USD/KWH
real-time pool price avg.

User ID	0x01...7b63

Token $ USDC ▾

Price Rate
USD per KWH   0.42 $

Amount
Amount in KWH   60   KWH

Location Area   Select Location

Selected Location :
909 5th Ave, Seattle, WA 98164, USA

Estimated Total : 25.58 USD
Including 1.5% Platform fees.

Search

Future Work

- Software level
    - Add incentive mechanism with DELX Token
    - Involve account abstract to improve user experience
    - Add more zkEVM networks
    - Support more payment methods, i.e., Stablecoins and countries
- System level
    - Connect to charge stations & smart meters to input electricity data