Blockchain-enabled Smart Grid Systems

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BLOCKCHAIN TECHNOLOGY

Blockchain technology offer

- Distributed Database
- Incorruptible Ledger
- Durability & Robustness

Applications:

- Financial Sector
- Agriculture
- Energy industry

Why the energy sector must embrace blockchain technology?

- A component of the energy-sharing economy
- Balance the geographical mismatch between supply and demand
- Significant security and trust enhancement

smart contract ⟷ smart contract

Smart contracts in the blockchain technology:

- Execute when electricity is delivered, triggering payment from buyer to seller.
- Removing financial transactions and the execution of contractual commitments from central control.
- Smart contract based consensus mechanism further increases autonomy of the network peers.
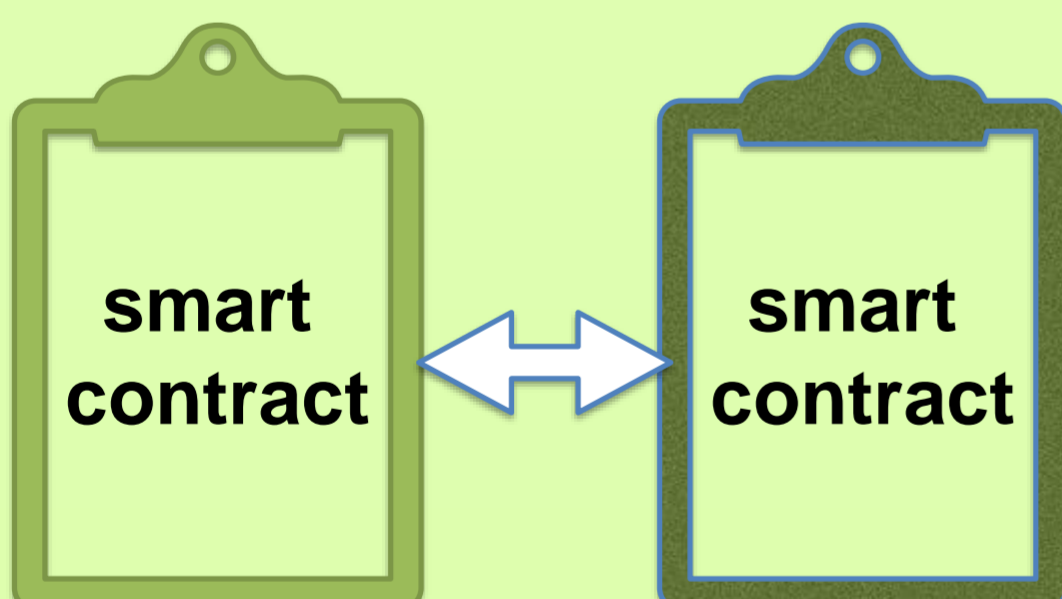
Pilot projects:

1. **April 2016**, traded renewable energy on the public Ethereum networks, **Brooklyn, New York**.
2. **October 2017**, allow residents to buy, sell or swap excess energy via Western Power network, **Perth and South Western Australia**...

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