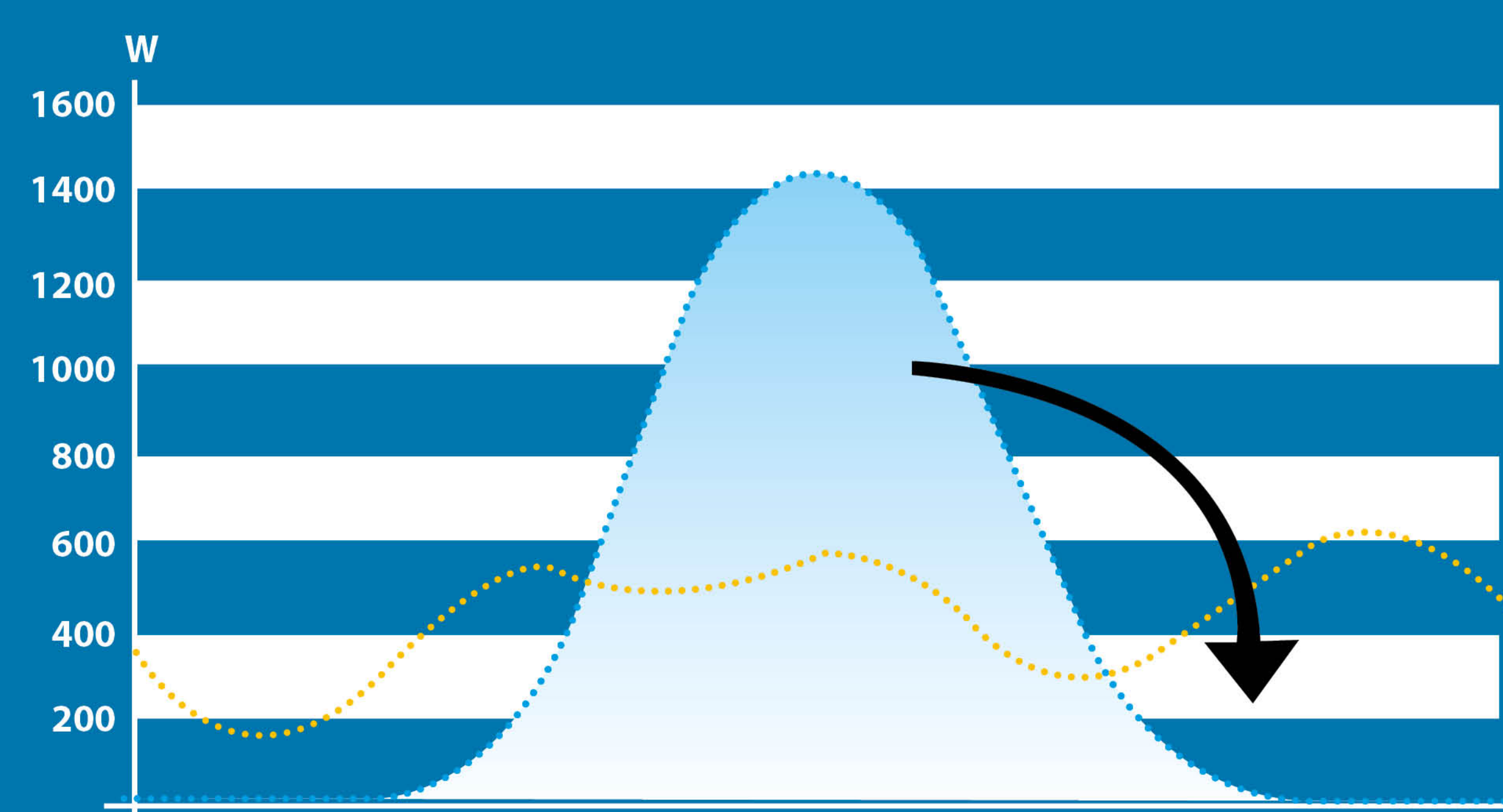
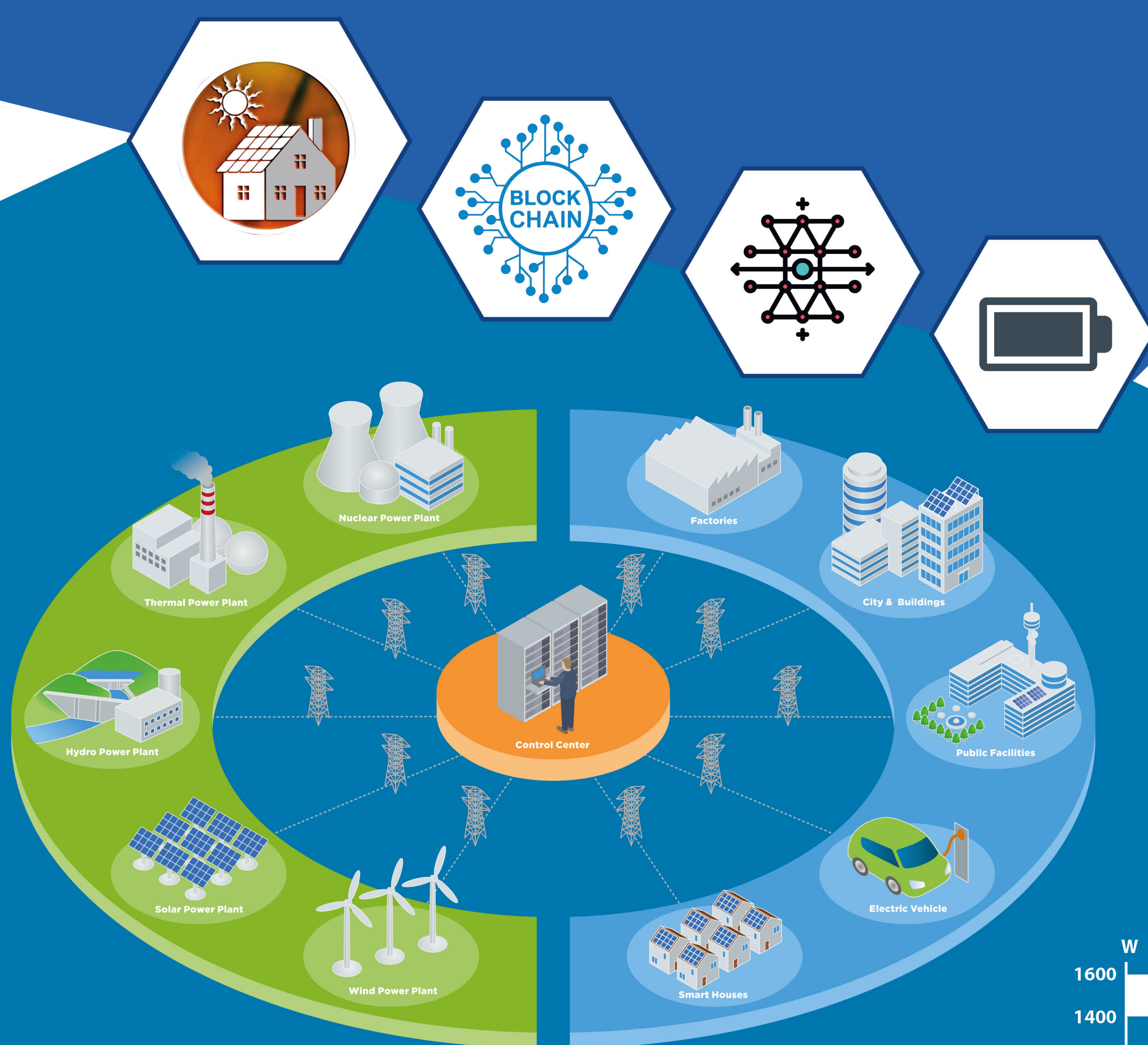
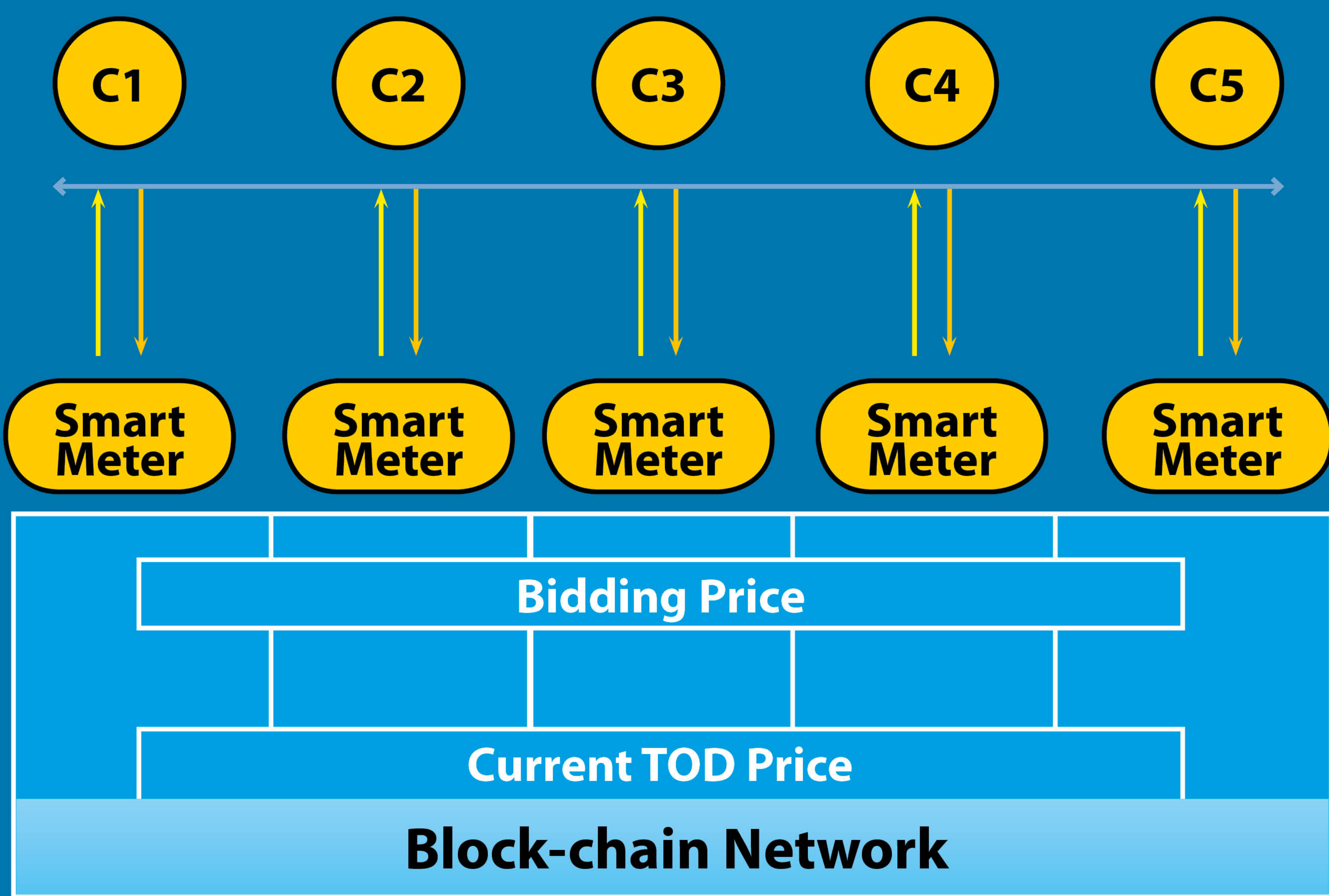


'P-2-P' Energy Exchange within RE-based Networked Micro-Grids using Block-chain

Objective: Efficient management of peak demand of a utility having distributed solar rooftop PV in their licensed area under dynamic pricing mechanism.



Consumers with different combinations of rooftop solar PV and batteries



DISCOM

→ Providing price information
 → Buying power at bid price

- Application enables transactions between individual consumers and producers of energy, the project seek to optimize the functionality of renewable power sources, using time of the day (TOD) price signals to encourage producers to bolster the grid at times of peak consumption.
- Consumers willing to sell electricity will be able to slide a bar on the application interface to indicate the maximum price they are willing to pay for different energy sources in their network. Producers can then set their price, and begin loading their contributions onto the grid when there is a matching bid. The ledger will serve as an accounting system, in addition to the one that the local utility keeps for its billing purposes. Facilitating transactions will require utility to settle transactions in real INR, while managing service charges for their network/ grid usage by prosumers and consumers.

Outcome: This would help Indian utilities/ Discoms to better manage their peak demand. The same block-chain network can further be leveraged encourage demand response programme. Raise the awareness of consumers, and increase their sense of participation for various EE measures

Project work is being undertaken under US-India Collaborative For Smart DiStribution System Wlth Storage (UI-ASSIST)

