



# Enabling High Penetration Storage with Transactive Markets

High Penetration of Storage Panel  
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# Keys to High Penetration Storage

- ❑ What will drive high penetration storage?
  - ❑ Low cost solar and quest for resiliency and clean energy
  - ❑ Commercially mature, low cost storage technology, with high volume manufacturing
  - ❑ Any party can install storage where, when, in any size, and move it.
  - ❑ Coordinated autonomous operation and investment
  - ❑ New business, regulatory, and market models
  
- ❑ What will inhibit high penetration storage?
  - ❑ Attempts to centrally dispatch distributed and behind the meter storage with many locations, chemistries, sizes, durations, states of charge, cycle lifes, response rates, efficiencies, wear, and missions.
  - ❑ Aggregation into virtual power plants and storage plants
  - ❑ ISOs for the distribution grid (DSO)

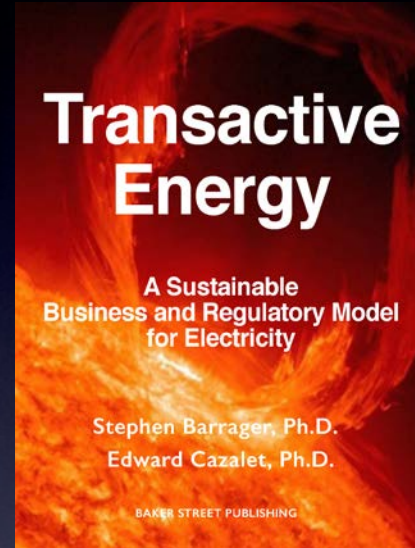
# The four big ideas of Transactive Energy (TeMix):

Forward transactions are used to coordinate investments and manage risk.

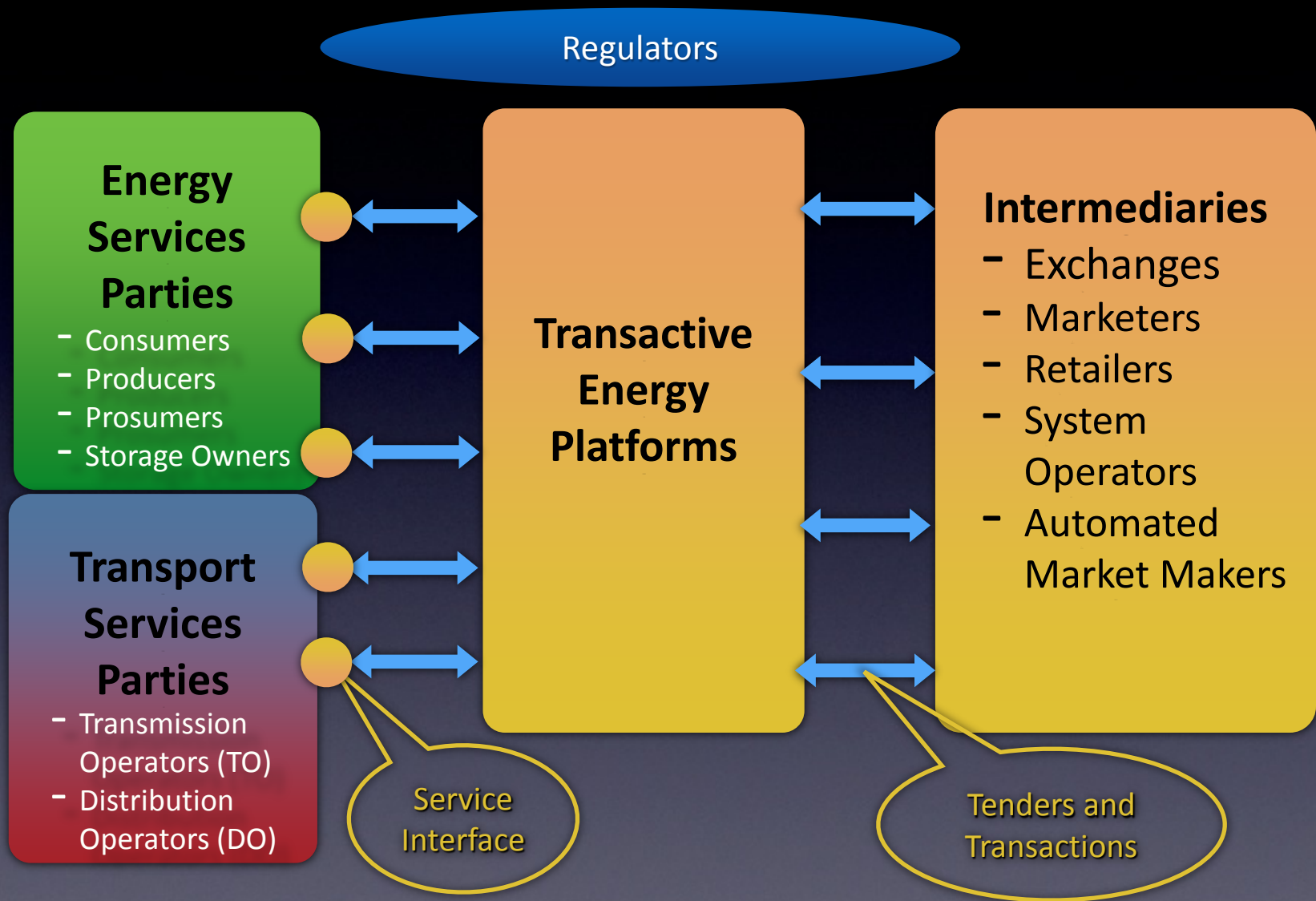
Spot transactions are used to coordinate operating decisions.

All parties act autonomously.

There are two products: energy and transport..



# Structure of Transactive Energy Markets



# Automatically manage facilities and devices in response to Tenders from TE Platforms.

