

# Opus One Solutions

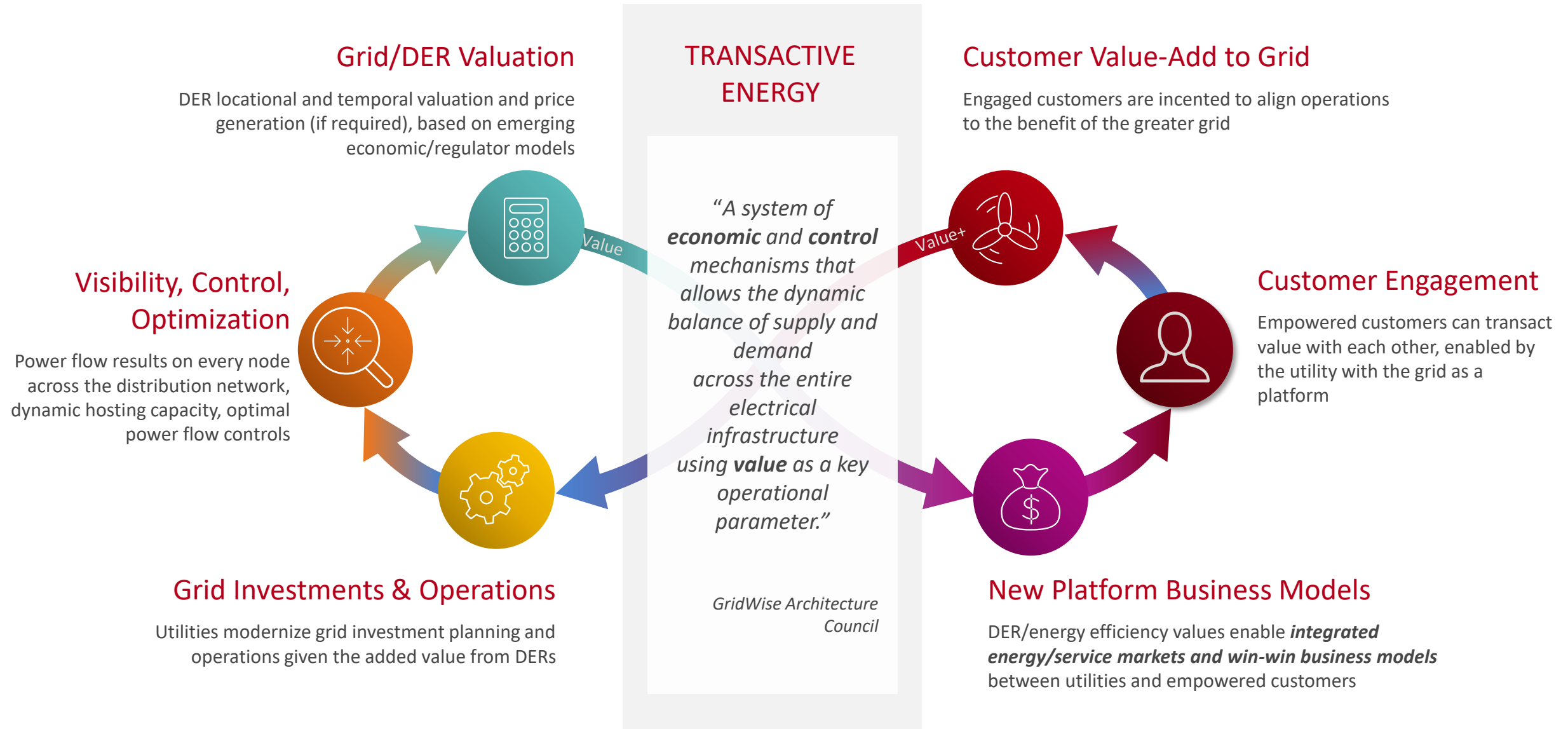
RESTRUCTURING REVISITED – COMPETITION IN ELECTRICITY DISTRIBUTION  
October 2019

Ben Ullman  
Manager, Energy Markets  
[Ben.Ullman@OpusOneSolutions.com](mailto:Ben.Ullman@OpusOneSolutions.com)



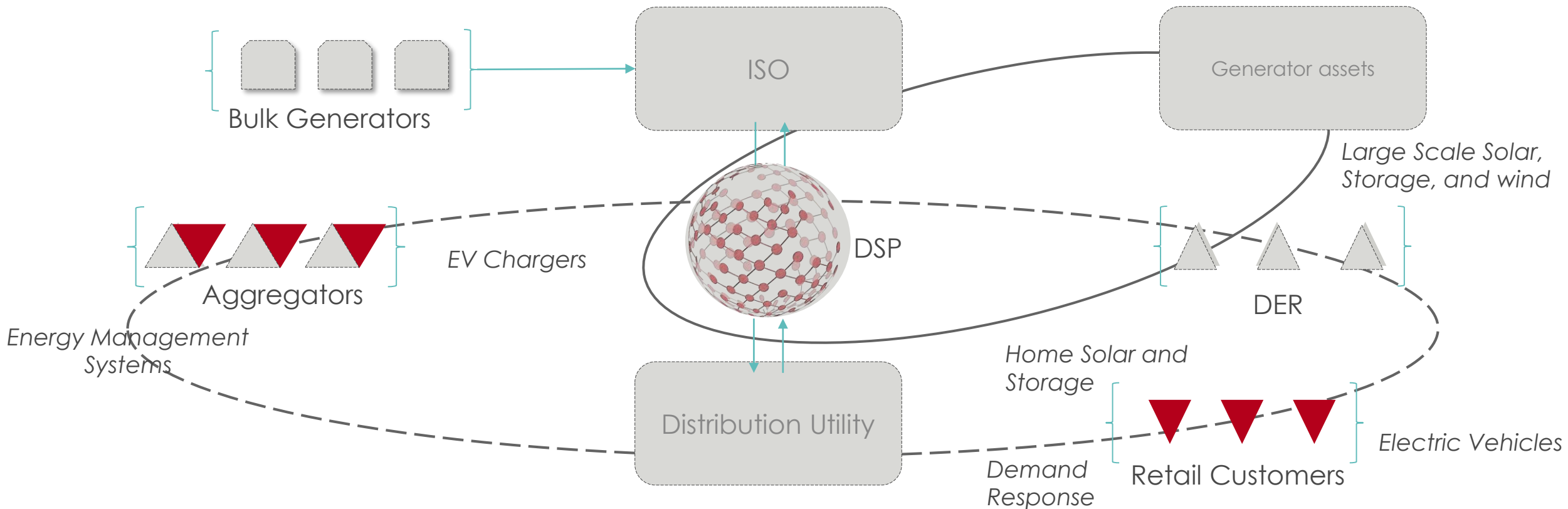
# Distribution-Level Energy Markets

# Evolving Utility-Customer Relationship



# Tying it together: The Distributed System Platform

A Distributed System Platform (**DSP**) may emerge as the entity to manage the energy services the various DER in the utility's service territories may provide and communicates schedules and prices between DER, Distribution System Utility, and Transmission System Operator (ISO).



# Transforming Energy Retail

## Status Quo

- Energy retailers serve load by purchasing through bulk systems and contracting with some DER

## Market Change

- DER have increased in prevalence, but current markets do not adequately consider their ability to provide services
- **Result:**
  - Higher rates than necessary
  - Lower DER penetration than possible
- DER installations 'right-sized' to native loads
- Rate structures differing by asset rather than service
- Demand Response tied to total system rather than local constraints
- Assets utilized based on grid-safety heuristics

Status Quo

## Technological Solution

- GridOS-Transactive Energy Management Systems (GridOS-TEMS) creates a single price and schedule per service per interval at the distribution level
- Non-discriminatory participation by each DER based on the services it provides to the network
- **One system-generated price per service, per location, per interval**, rather than a complex web of programs operated separately

- DER 'right-sized' to distribution system specific needs
- Time- and location- specific rates tied to service rather than asset
- DER providing services based on as-operated market needs
- Assets utilized based on real-time calculations of system and asset capabilities

New Market Possibilities