

# AEG Chicago Q3 Stakeholder Challenge

IoT, Technology, & Innovation

Sep 23<sup>rd</sup>/24<sup>th</sup>, 2020

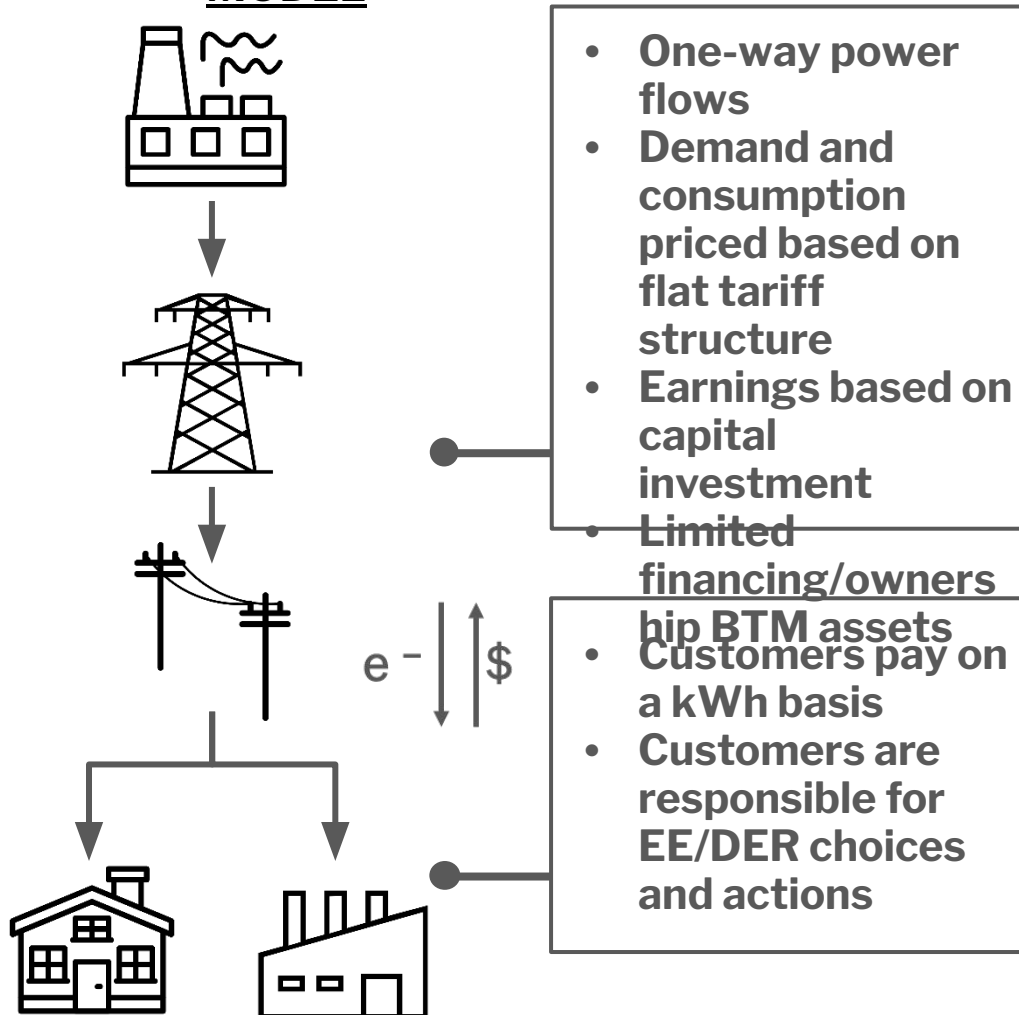
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# The current energy delivery paradigm needs to improve affordability and benefits of energy innovations across socioeconomic groups

## CURRENT ENERGY DELIVERY MODEL



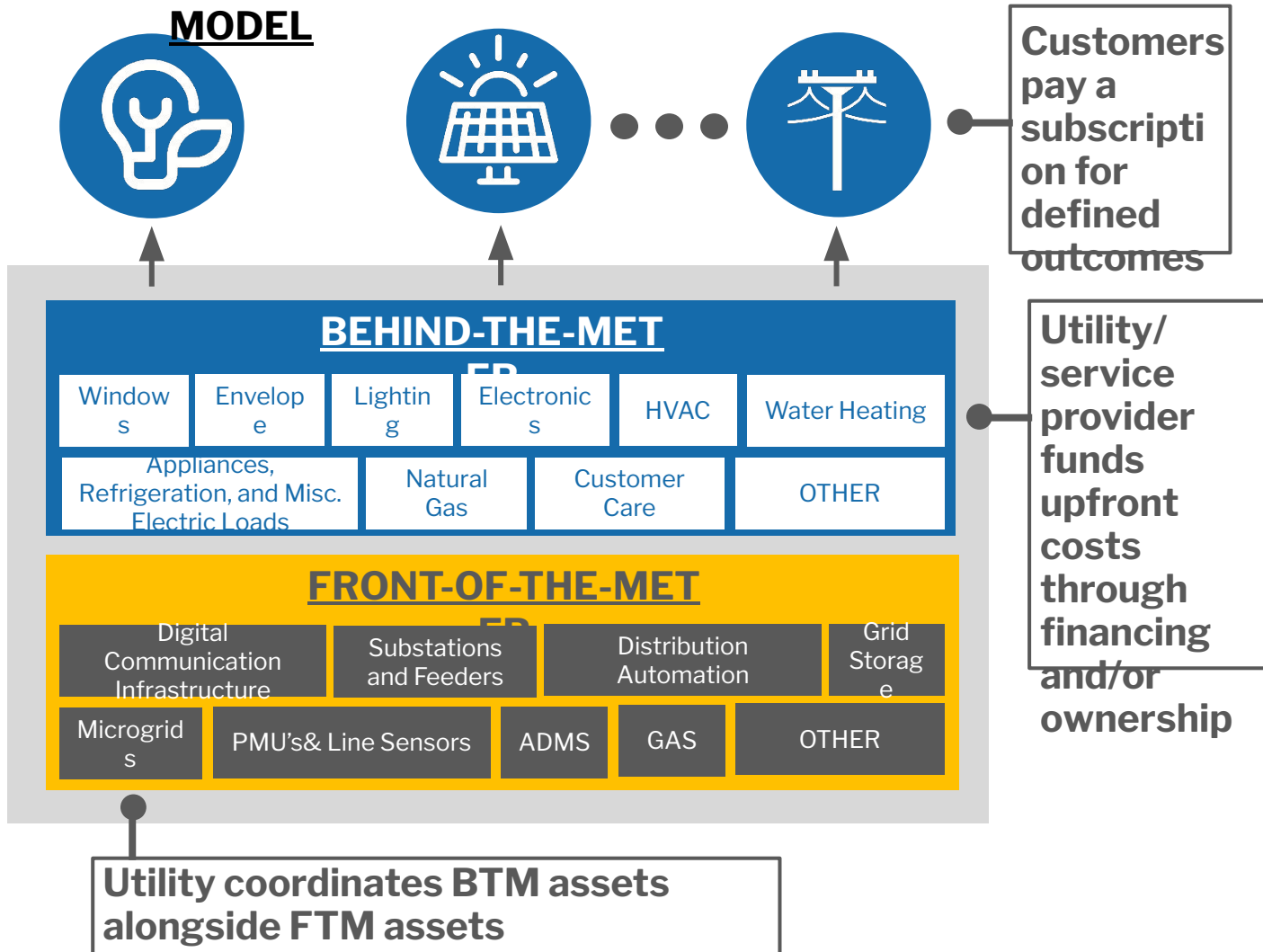
- T&D costs are fixed costs, but have historically been recovered through variable rates
- Conflict between cost-effective/environmentally-friendly DER deployment and the kWh-dependent utility business model
- Need to increase participation in energy efficiency/DER economy across socioeconomic groups
- Electric bill unpredictability makes budgeting difficult



Bill Affordability

# Coordinating FTM/BTM assets can support affordability objectives, but delivering this coordination requires a better understanding of how best to support customers

## **ENERGY-AS-A-SERVICE DELIVERY MODEL**



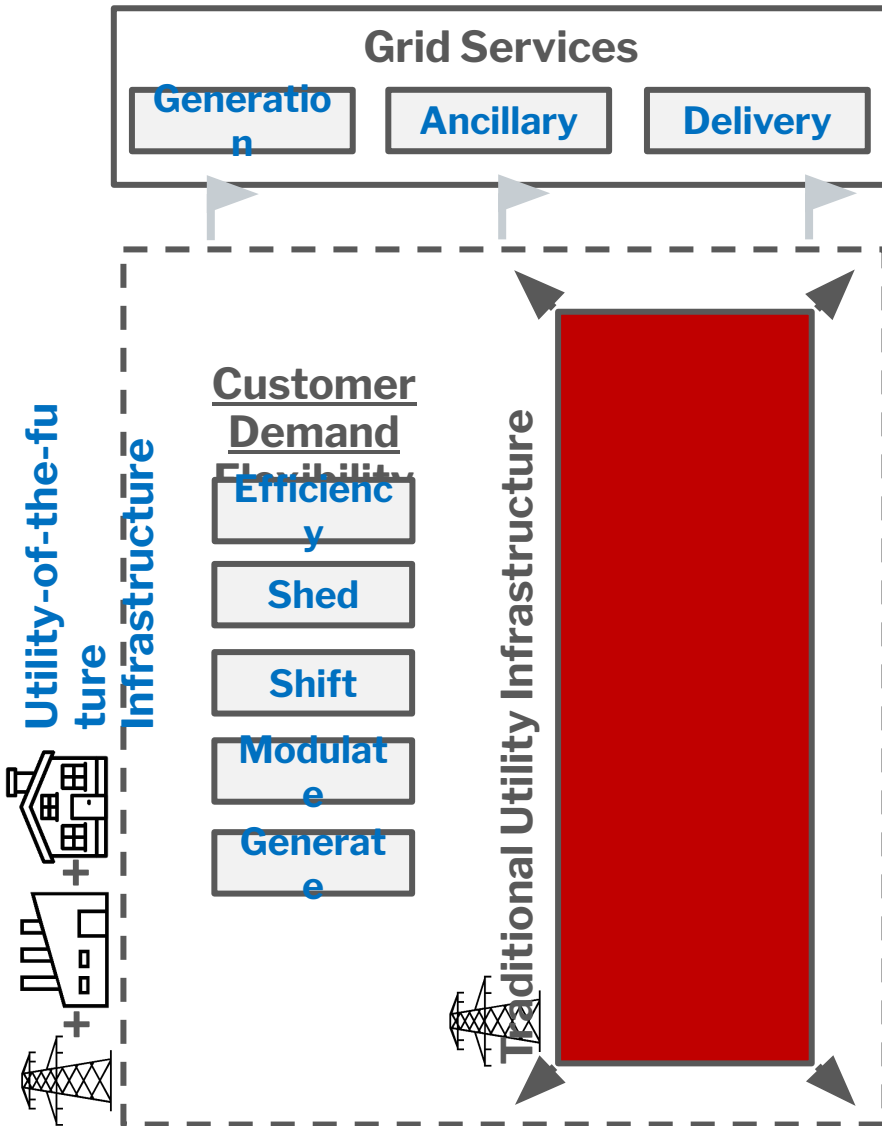
Coordination of FTM assets alongside BTM assets is needed to achieve customer and regional outcomes



### OBSTACLE:

We do not know how and to what extent our customers are willing to partner with the utility on demand-side management to co-optimize grid and customer objectives

# The benefits of customer-informed asset coordination include lower electricity bills and greater grid resiliency



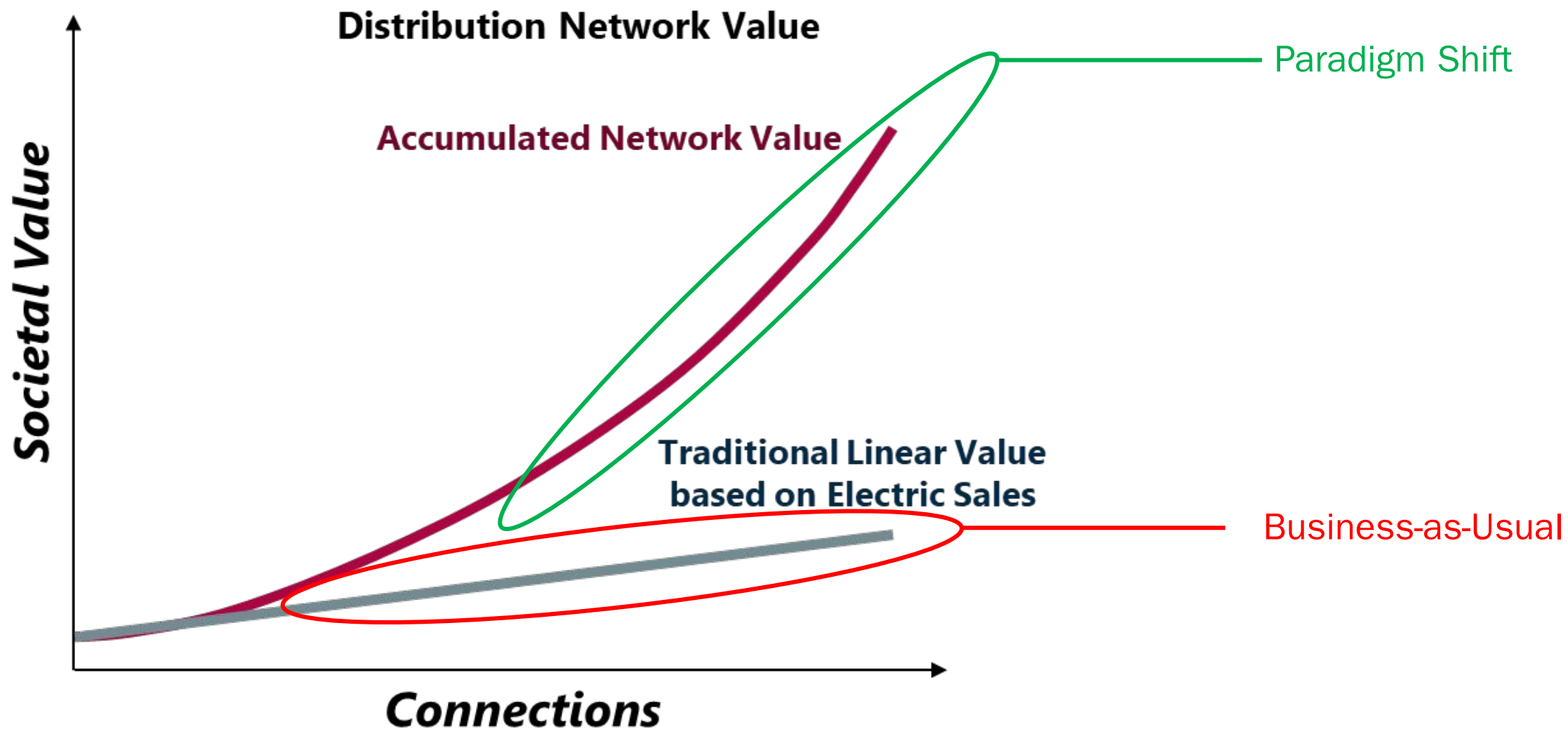
## Customer Benefits:

- Lower electricity bills
- Broader participation in energy-efficiency/DER economy
- Greater efficiency/faster decarbonization

## Utility Benefits:

- Distributed intelligence/control provides for greater resiliency and more operational flexibility
- Utility alignment with customer demands
- Broader IoT adoption improves efficacy of “intelligent” network for future smart community use cases

By not exploring this new paradigm, we will potentially miss opportunities for grid, customer, and societal value



Regarding IoT, Technology and Innovation, to achieve Chicago's 2050 Carbon & Equity goals, the most critical obstacle to overcome is the lack of actionable data informing incentives needed to solicit customer BTM asset participation in grid/customer optimization programs.