

The Utility Perspective of GEBs

DOE Building Technology Office Peer Review
Arlington, VA
April 15, 2019

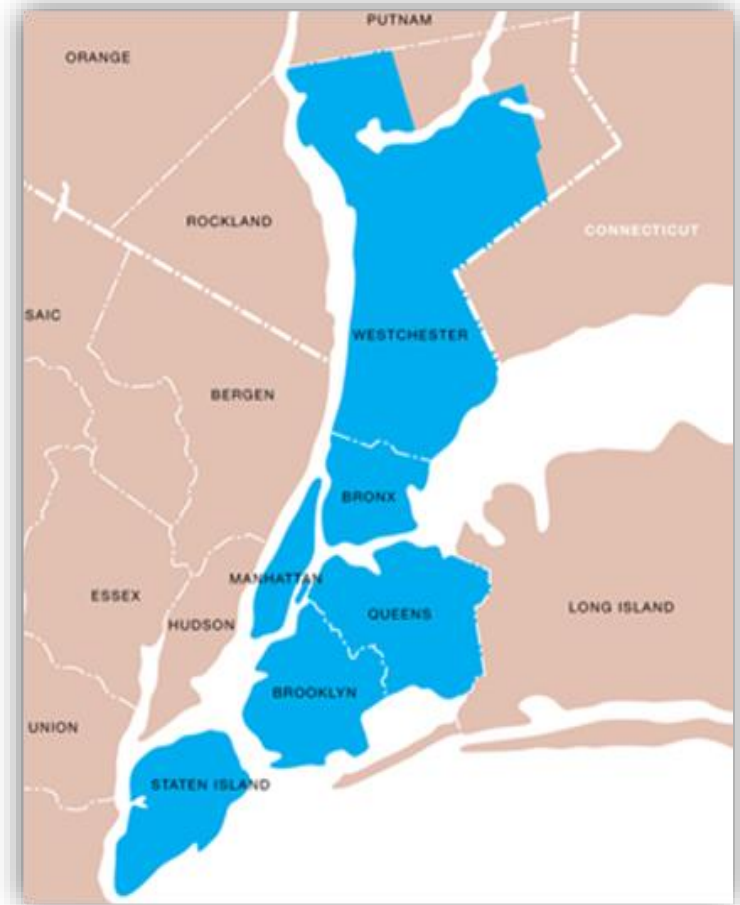
About Consolidated Edison

	Customers	Infrastructure	Service Territory
Electric	3.3 million	One of the largest underground systems in the world	All 5 boroughs and Westchester County
Gas	1.1 million	4,333 miles of gas mains and services	3 out of the 5 boroughs and Westchester County
Steam	1,760	Largest district steam system in the world	Manhattan below 96 th Street

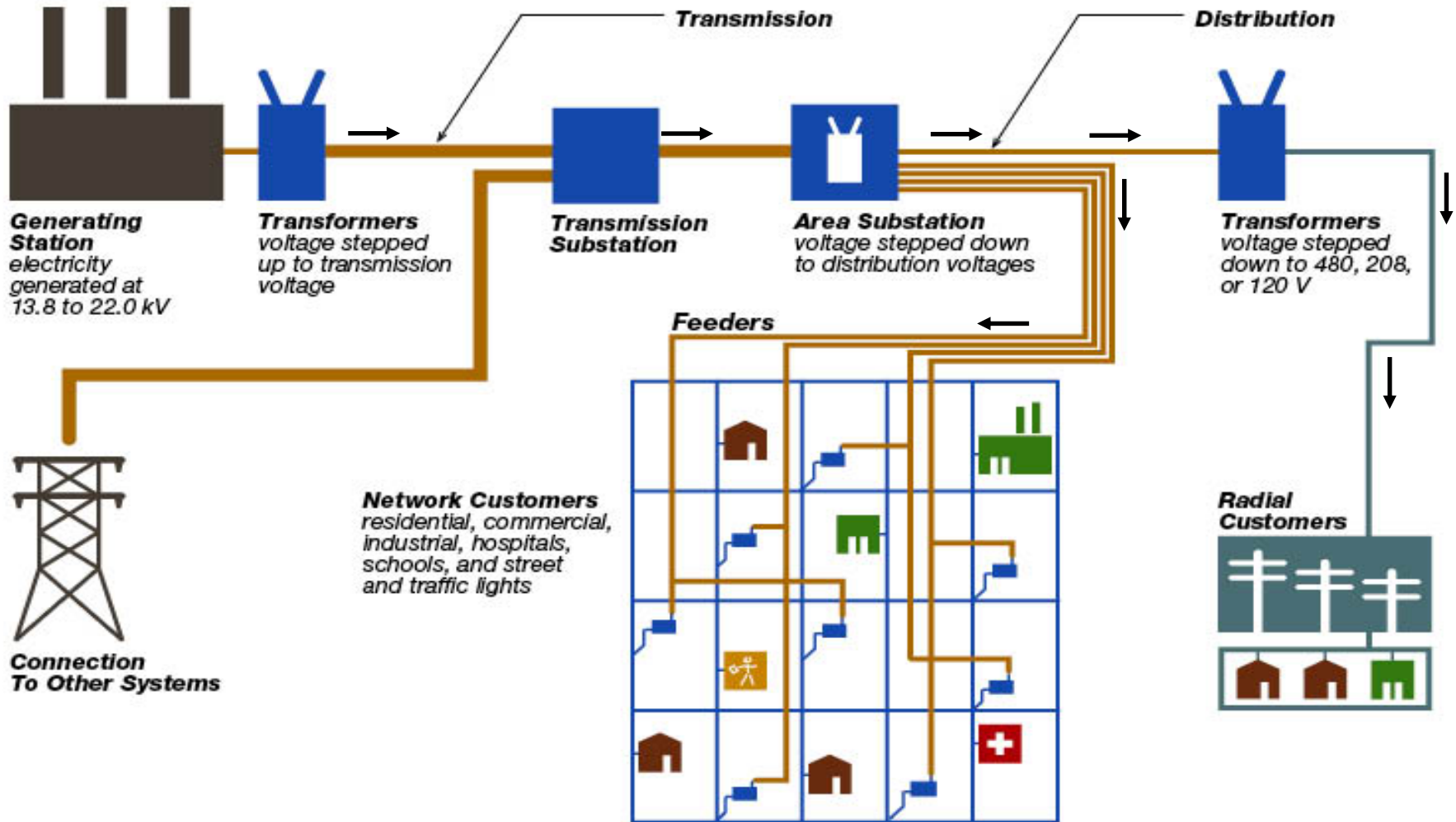
Con Edison also includes:

- *Orange & Rockland Utilities* – Gas and Electric
- *Clean Energy Businesses* – Con Edison Solutions, Con Edison Development, Con Edison Energy
- *Con Edison Transmission* – Electric transmission and gas midstream

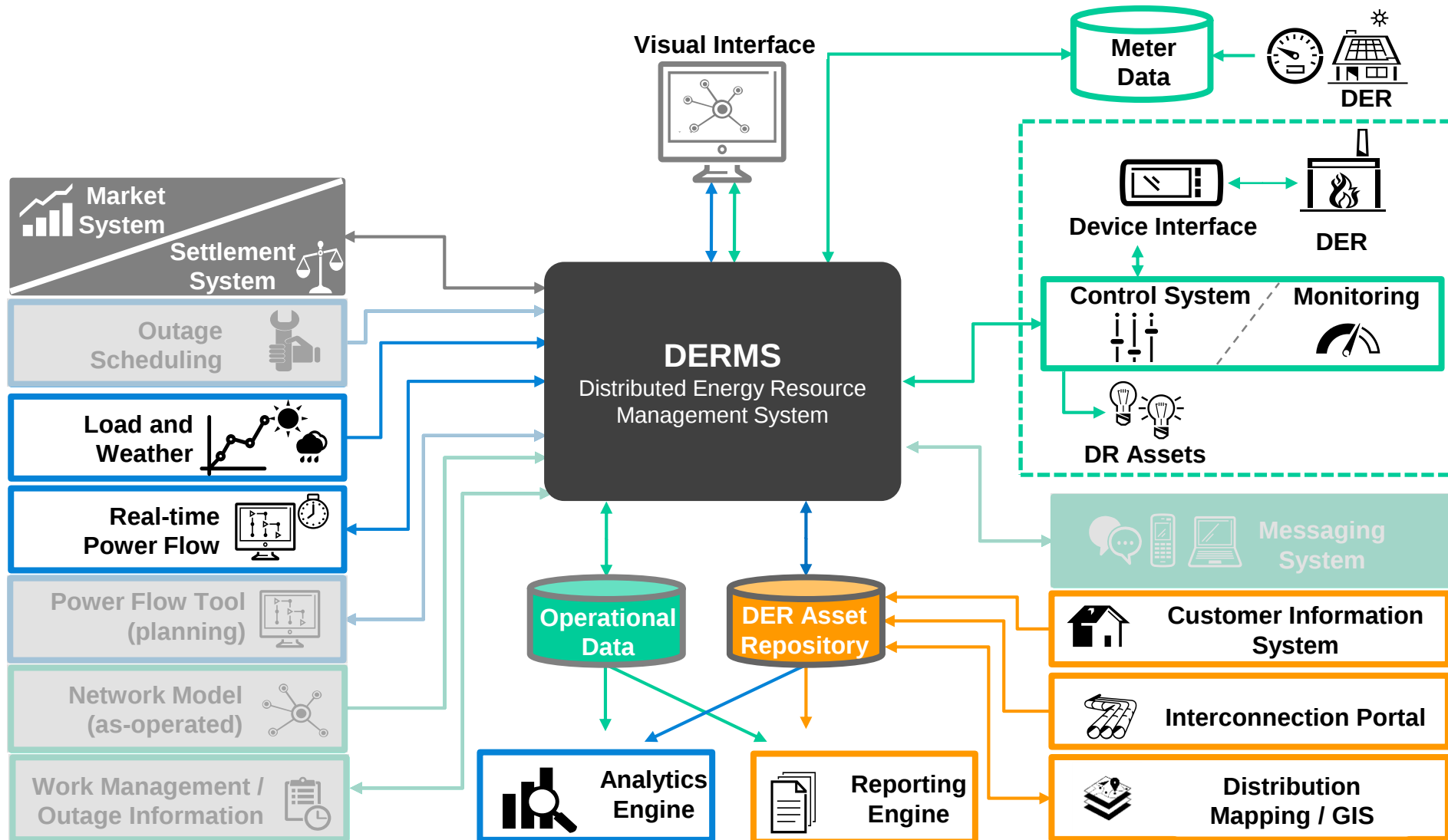
Footprint: ~134,000 miles of cable, >6.5 million room air conditioners



Our Current Grid

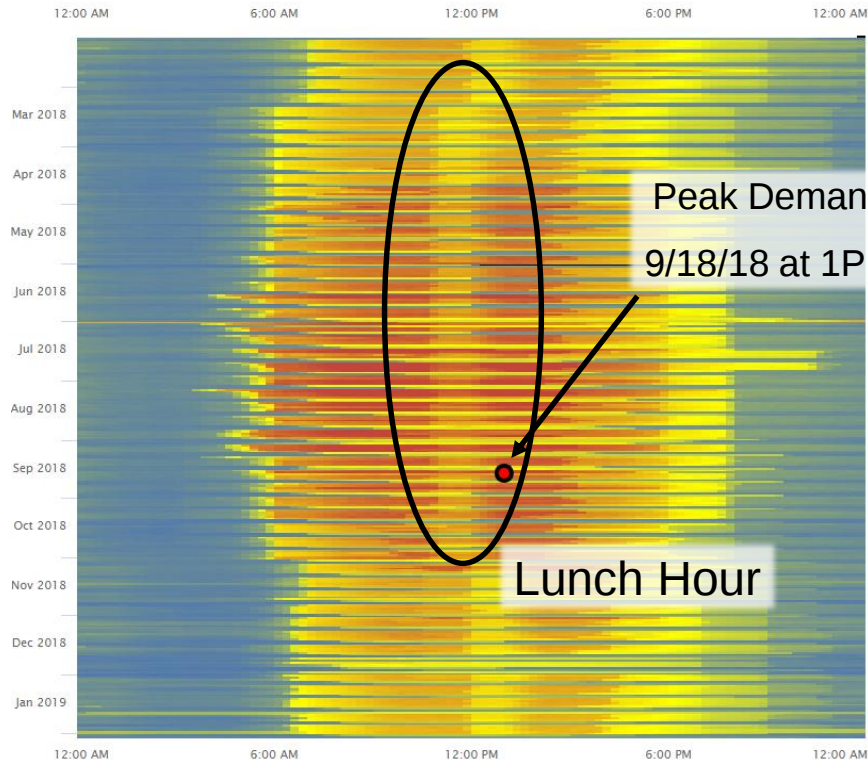


Potential Con Edison DERMS



The Integrated Building in the Wild

345 Park Avenue (Rudin Management Company)



Con Edison Demand Map

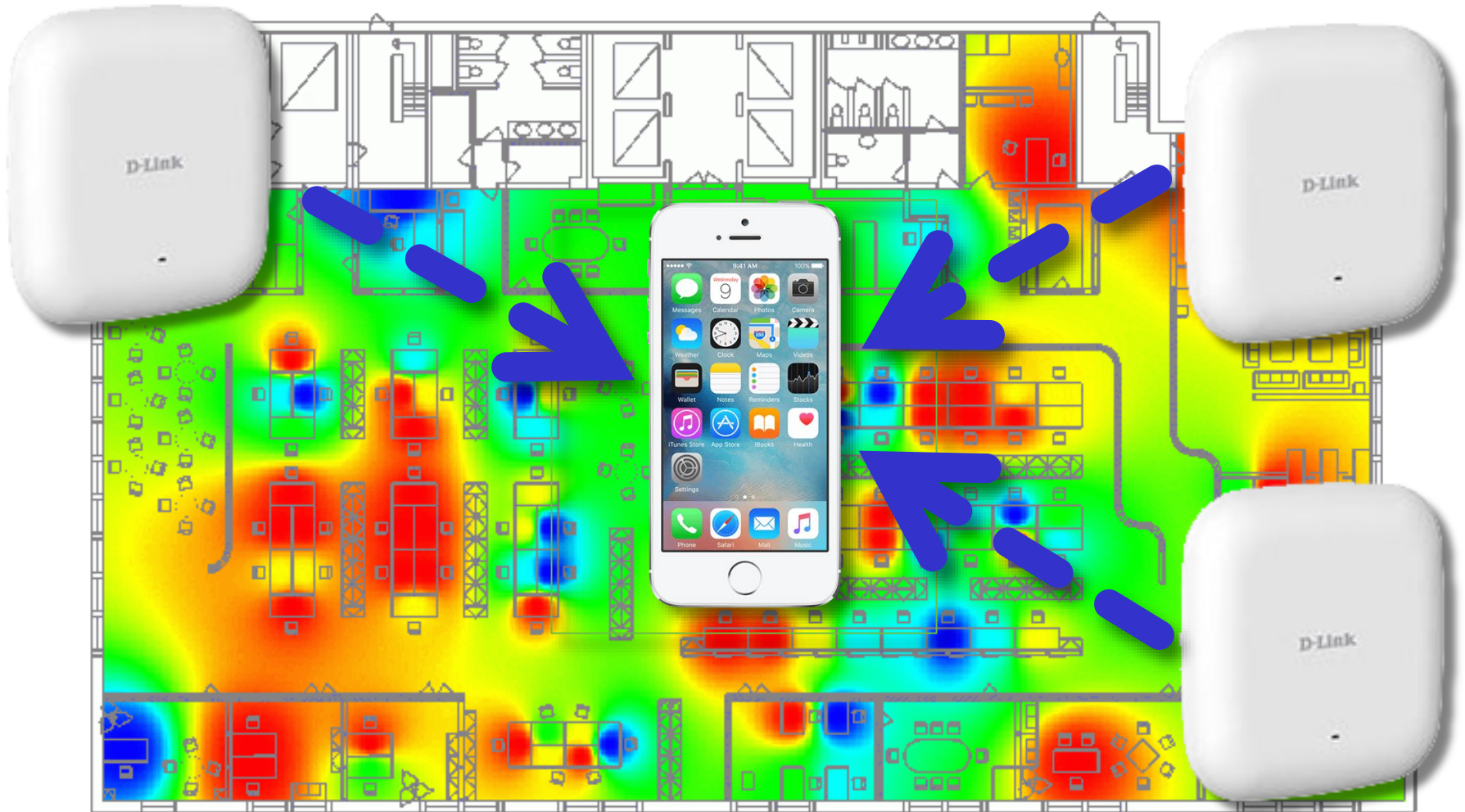


Readout from Nantium
(9/18/18)

Challenges and Questions to be Answered

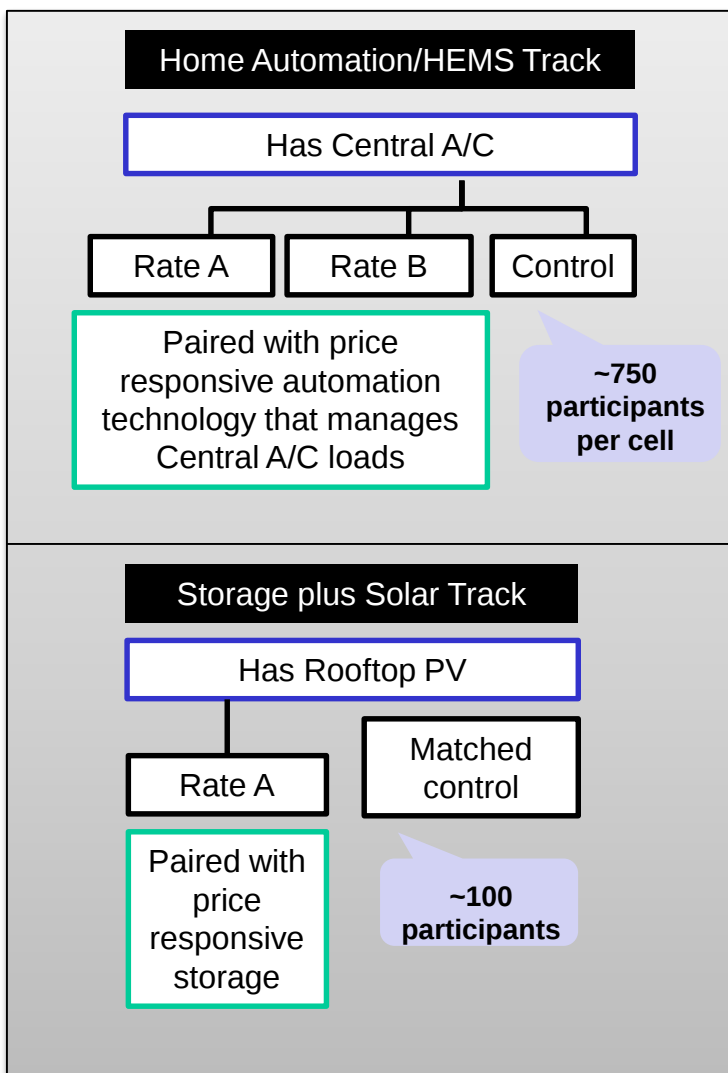
- Right Time, Right Place
- Building Age
- Building Type
- Submeters
- Regulatory Challenges
- Lack of Knowledge
- Who Makes the Decision
- Cost
- Can This Scale

What We're Working On Now: Project Beacon



Center for Energy and Environment

What We're Working On Now: Smart Home Rate



Cost Components	Unit	Rate Components	
		Rate A	Rate B
Energy Production (supply)	kWh	Day-Ahead Hourly NYISO LMP	
Embedded Transmission Costs	kW	Non-coincident daily demand charge (on maximum interval excluding night time hours)	Monthly subscription charge for demand level preselected by customer
Embedded Distribution Costs	kW		
Generation Capacity (Peak)	kW	Coincident demand event charge (on maximum interval during the event, incremental to daily demand charge), event time windows vary by cost component	Coincident demand overage penalty (applied only during event hours to incremental demand above kW preselected by customer), event time windows vary by cost component
Forward Marginal Transmission Capacity	kW		
Forward Marginal Distribution Capacity	kW		
Customer Connection Cost	\$/month	Fixed monthly customer charge	

Thank You



Zach Sussman
212-460-2135
sussmanz@coned.com

Energy Efficiency & Demand Management
conEd.com/energyefficiency