



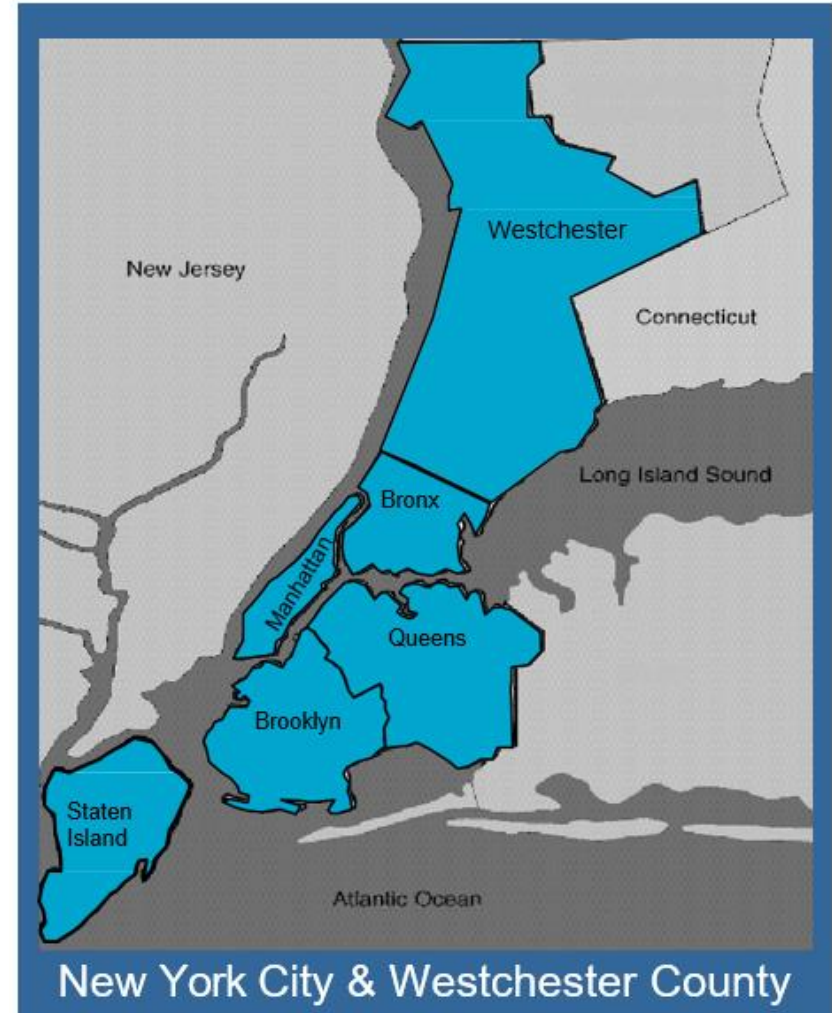
# CECONY Electric System

## Service Territory (blue)

Electric Customers	3.6 m
Population	9.1 m
Area	604 mi <sup>2</sup>
Peak Demand	13,322 MW
Load Density	21.8 MW/mi <sup>2</sup>

## System Voltages

Transmission(kV)	345, 500, 138, 69
Primary Distribution (kV)	33, 27, 13, 4
Secondary Distribution(V)	120, 265

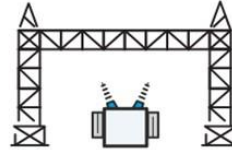


# Electric System Overview



**13,322**  
megawatts

Peak demand record on  
July 19, 2013 at 5 p.m.



**62**  
area substations



**51K**  
billion kilowatt hours

## Underground



**97K**  
miles of cable



**268.5K**  
underground vaults



**43K**  
underground transformers

## Overhead



**34.5K**  
miles of cable



**270K**  
utility poles



**52K**  
overhead transformers

# Electrification Strategy

## Enable change in energy consumption



Drive growth in energy efficiency



Implement demand response programs



Promote installation of EV charging infrastructure



Support incentives for heat pump installation

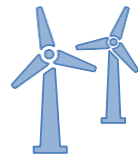
## Facilitate supply transformation



Invest in transmission to interconnect renewable generation



Advocate for development of long and short duration energy storage solutions



Advocate for utility ownership of renewable generation

## Build the grid of the future



Enable the expansion of the electric system



Build a more resilient system against climate change

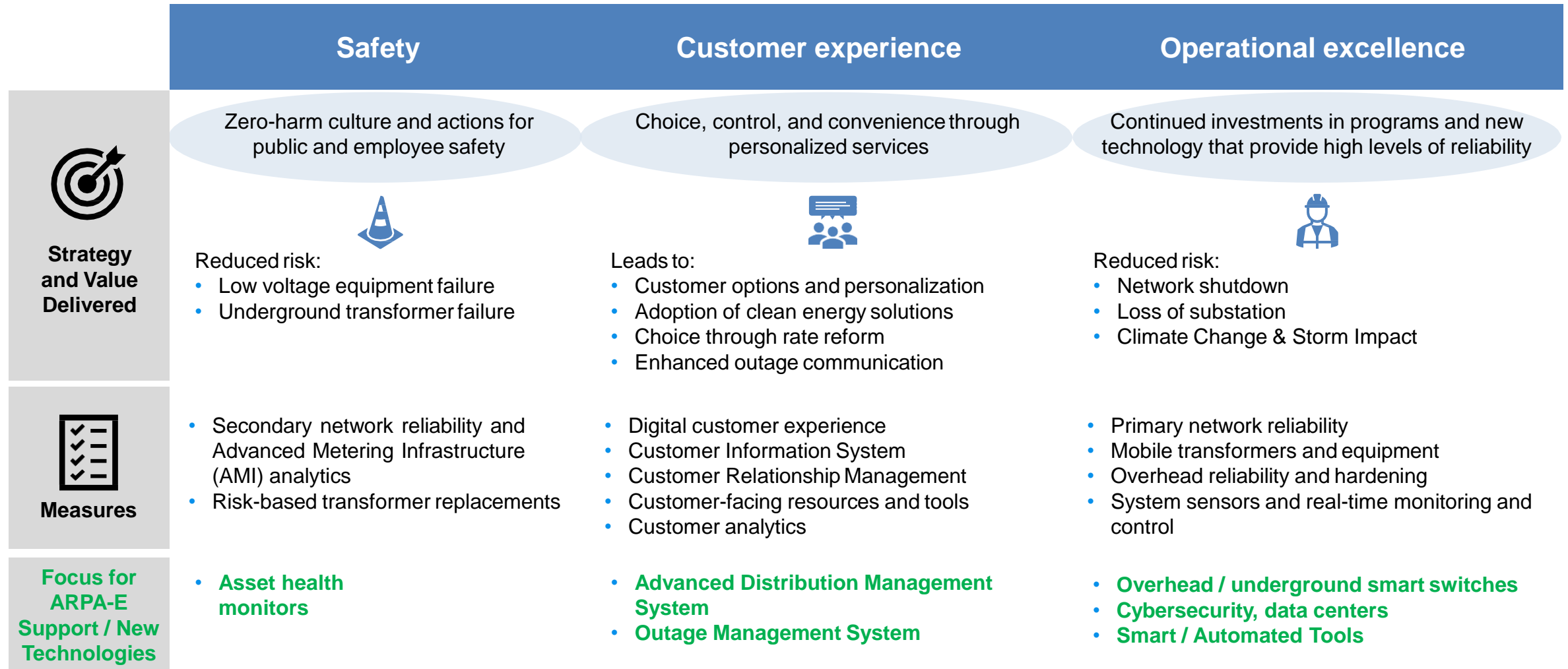


Enhance safety, reliability, and customer experience



Develop new grid capabilities

# Build the Grid of the Future



# Electrification impact on Utility worker safety & productivity

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New hires & employee retention



Volume of work during transition



Rising trend of Operating Errors



Human Factor vulnerability



Productivity

*Areas for ARPA-E to assist in developing technologies to improve safety, reduce human errors & accelerate learning curve*