

AEG New York 22Q3 Stakeholder Challenge: Grid Modernization

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Introduction



2,550

Team members
around the world

>100 m

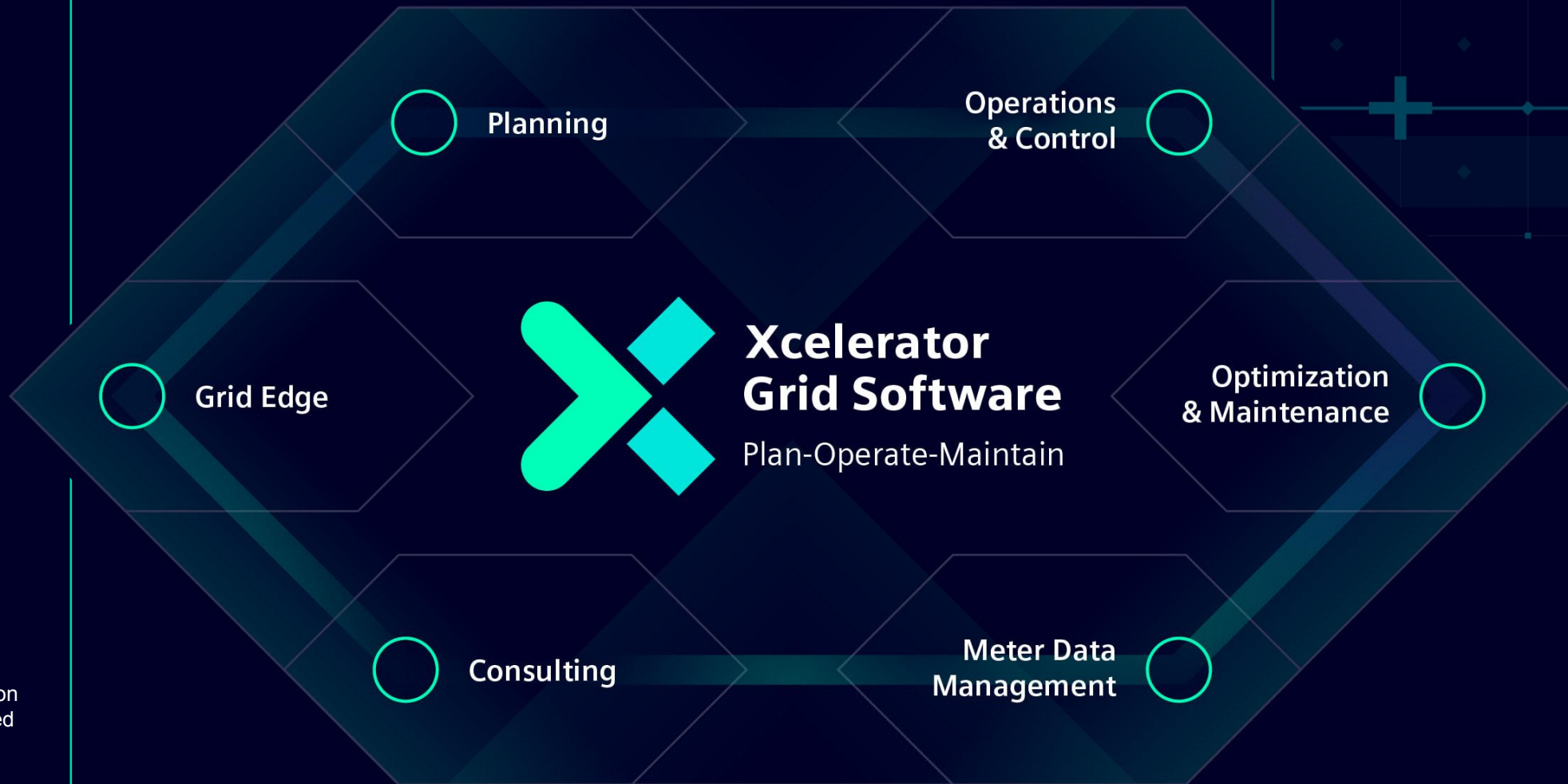
Meters contracted

1,300

Control
centers

70%

of the world's electricity consumption
flows through infrastructure planned
or analyzed by Siemens Grid
Software



What is the general problem or objective per this topic?

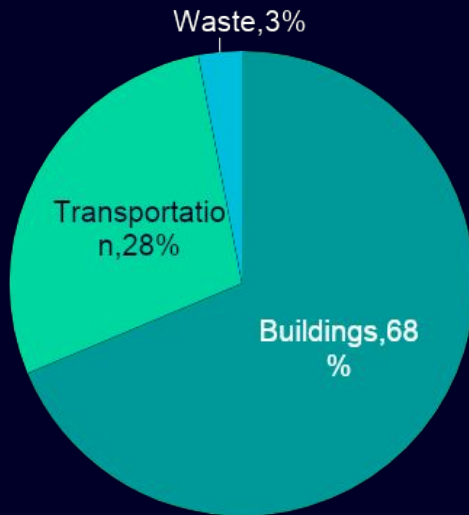
Increased hosting capacity needed to meet rapid and extensive growth of EVs and decarbonization targets

1 Transportation is a major GHG contributor

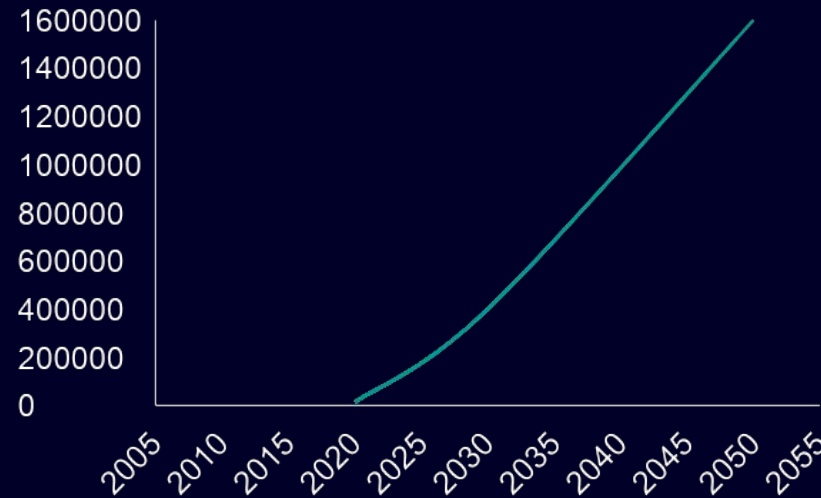
2 Rapid and extensive growth of EVs needed

3 Number of EVSE which can be added to the grid is limited

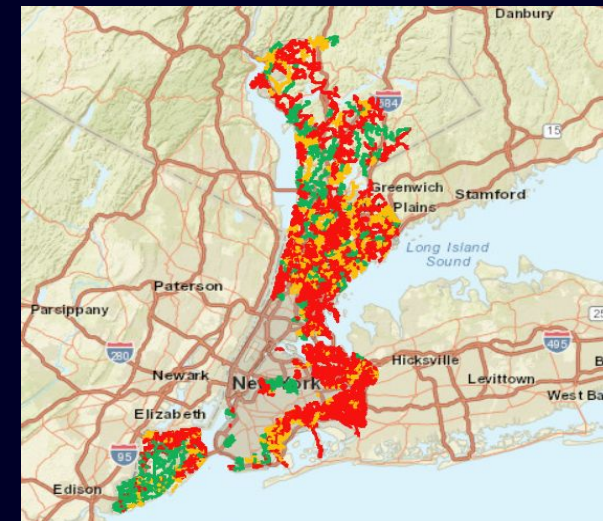
NYC GHG Emissions Profile¹



EVs needed for NYC target¹



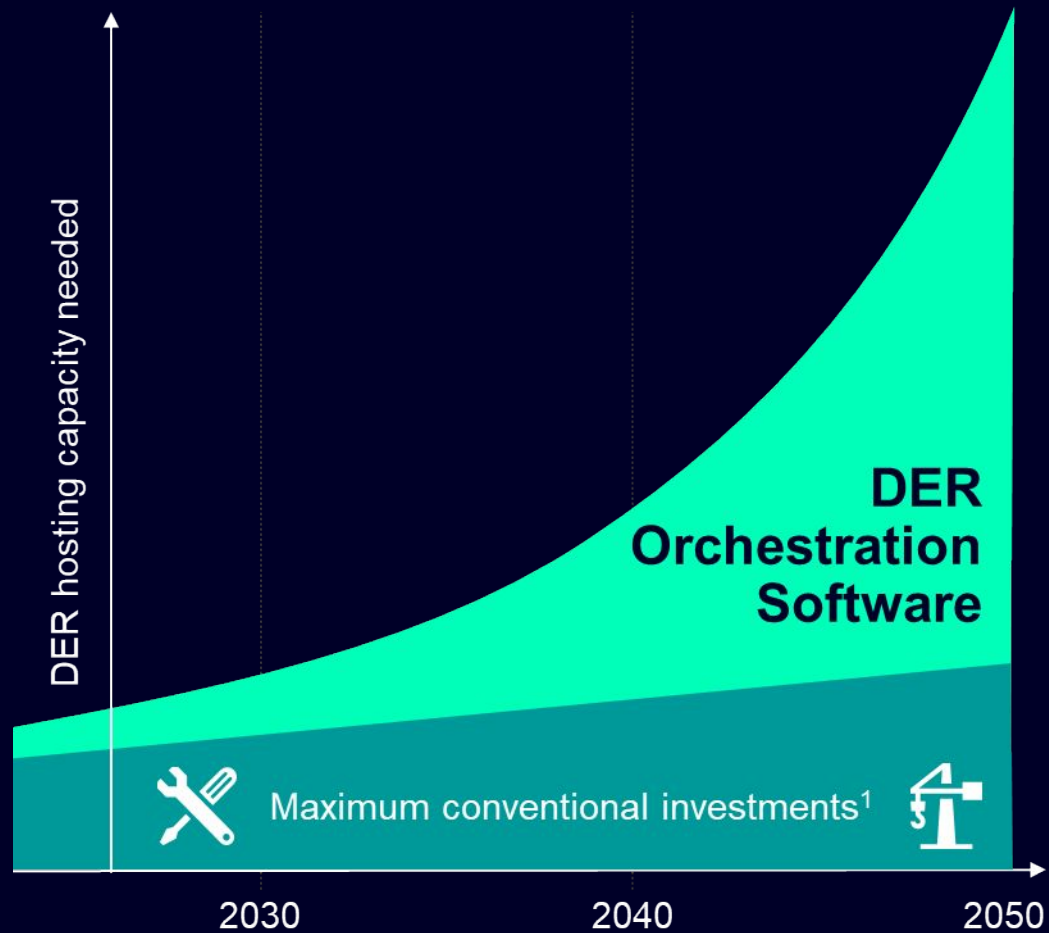
EV Charging Capacity²



¹ "Electrifying New York Report," New York City Mayor's Office of Sustainability, September 2021

² Con Edison Hosting Capacity Web Application

What is a key obstacle/challenge to overcome in solving this problem in the next 12 months?



¹ Limited by resource availability, coordination effort, space, acceptance, etc.

Key factors for successful DERMS implementation include understanding:

- Where, when, and how much additional hosting capacity is needed
- Available demand-side flexibility
- Behavioral barriers to overcome

What are the benefits / consequences of addressing or not addressing this obstacle in 12 months?



1. Better prioritization of grid modernization investments to achieve electrification targets

- Understand critical grid segments, available flexibility and future needs

2. Higher chances of success for DERMS implementation

- Address potential behavioral barriers and customer acceptance issues early-on





Regarding Grid Modernization, to achieve New York's Climate, Health and Equity goals, a critical obstacle to collectively overcome in 12 months is...

lack of understanding and awareness on where, when, and how much additional hosting capacity is needed, while considering planning / implementation of demand-side flexibility with associated behavior change measures.

