

# AEG New York Stakeholder Challenge Grid Modernization

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conEdison

# Introduction

*The Climate Leadership & Community Protection Act has codified clean energy targets and commitments in a variety of different categories:*

- 85% Reduction in GHG by 2050
- 100% Renewable Energy by 2040
- 70% Renewable Energy by 2030

*This will require the integration and acceleration of many evolving technologies into the Electric Grid:*

- 10 GW of Distributed Solar
- 6 GW of Energy Storage
- 850,000 ZEV (Light, Medium & Heavy Duty, Fleets)
- 9 GW of Offshore Wind
- Building Electrification

*Traditional grid planning has gotten us off to a successful start but evolving targets will require an evolving process.*

# Critical Problem

Flexible Forecasting and an Integrated Planning approach

## Deterministic vs Probabilistic Forecasting

How do we accurately capture forecasted metrics for various modifiers?

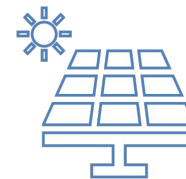
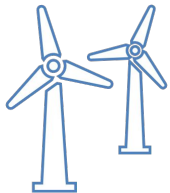
## Single Forecast vs. Scenario Planning

Current forecast is built around system peak assumptions @ network level

How do forecasts evolve to capture multiple scenarios?

## Integrated Planning and Multi-value Projects

How are we designing and prioritizing our capital budgets for a multitude of forecasts?



# Key Obstacle to Overcome

Increased reliance on Grid access, for the continued adoption of clean energy resources and load growth due to building and transportation electrification, will require changes to forecasting and planning practices.

The Distribution System is more dynamic than ever:

- ~ 9600 DG Applications per year
- ~ 1800 Light Duty EV Applications
- Future Medium & Heavy-Duty
- Clean Heat/Electrification Incentive Programs/Targets

## ***Zerega Avenue (Bronx):***

- ***>45 MW of Fleet Electrification Potential***
- ***EV penetration has already begun***
- ***How do we establish confidence factors and forecasts to strategically begin forecasted load relief through the New Business process?***



→ ***Bus and Fleet Electrification @ Zerega Avenue***

# What are the Benefits & Consequences of Addressing or not Addressing this Obstacle?

## Benefits of Addressing

- More efficient capital plans and people allocation
  - Future-proofing more sites
  - Understanding longer term planning horizons
- Multi-value Projects
  - Load Relief & Reliability
  - Increased Hosting Capacity
  - Climate-Proofing
- Flexible Forecasting Cycles
  - More frequency to evaluation

## Consequences of Not Addressing

- Greater difficulty managing New Business and Interconnection queues
- “Just In Time” solutions rather than a flexible planning portfolio
  - Project re-design, Risk of shorter timeframes (Land Acquisition, Long Lead Time Equipment)
- Difficulty in achieving long term CLCPA and NYC goals without a longer-term planning lens

# Final Statement

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

**Addressing the lack of alignment between scenario modeling and customer plans to properly upgrade the distribution grid, in a more coordinated and efficient manner, to collectively meet long-term CLCPA and Clean Energy Goals.**