

# Utility Tips & Resources for School Bus Electrification

Westchester School Bus Electrification Forum

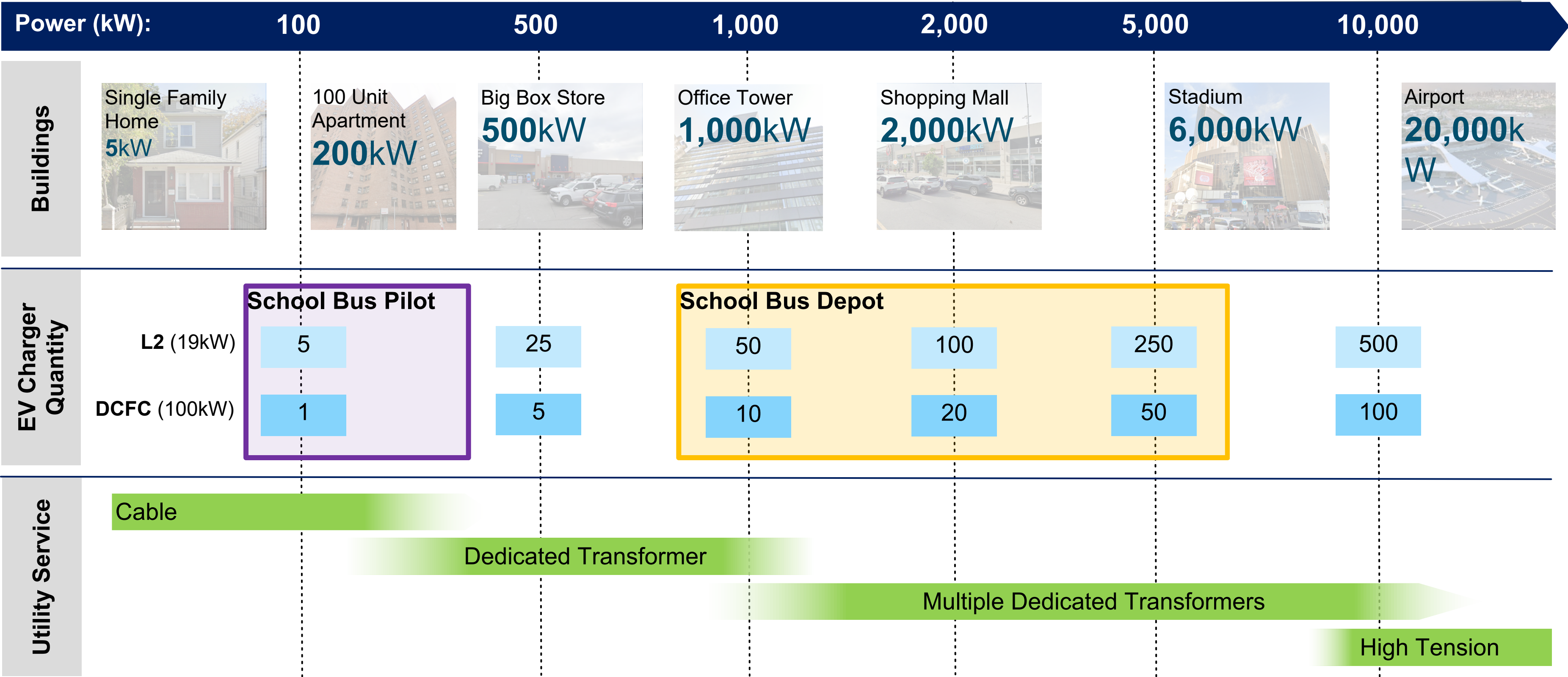
October 17, 2025



JOINT UTILITIES  
OF NEW YORK

Image Source: NYSERDA

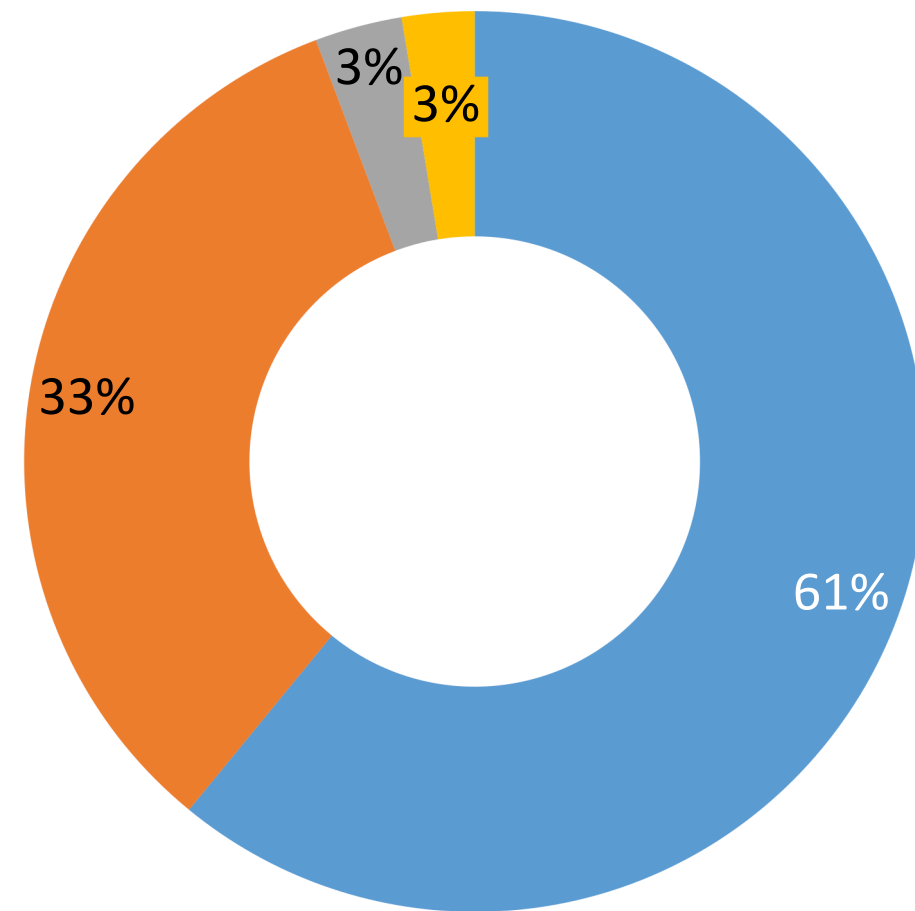
# EV charging has relatively large power requirements



# Over 1,100 public school bus sites evaluated in New York State

## School bus sites evaluated by organization

- PublicSchool District
- Transportation Service Provider\*
- BOCES, State District, or Municipality
- Charter School

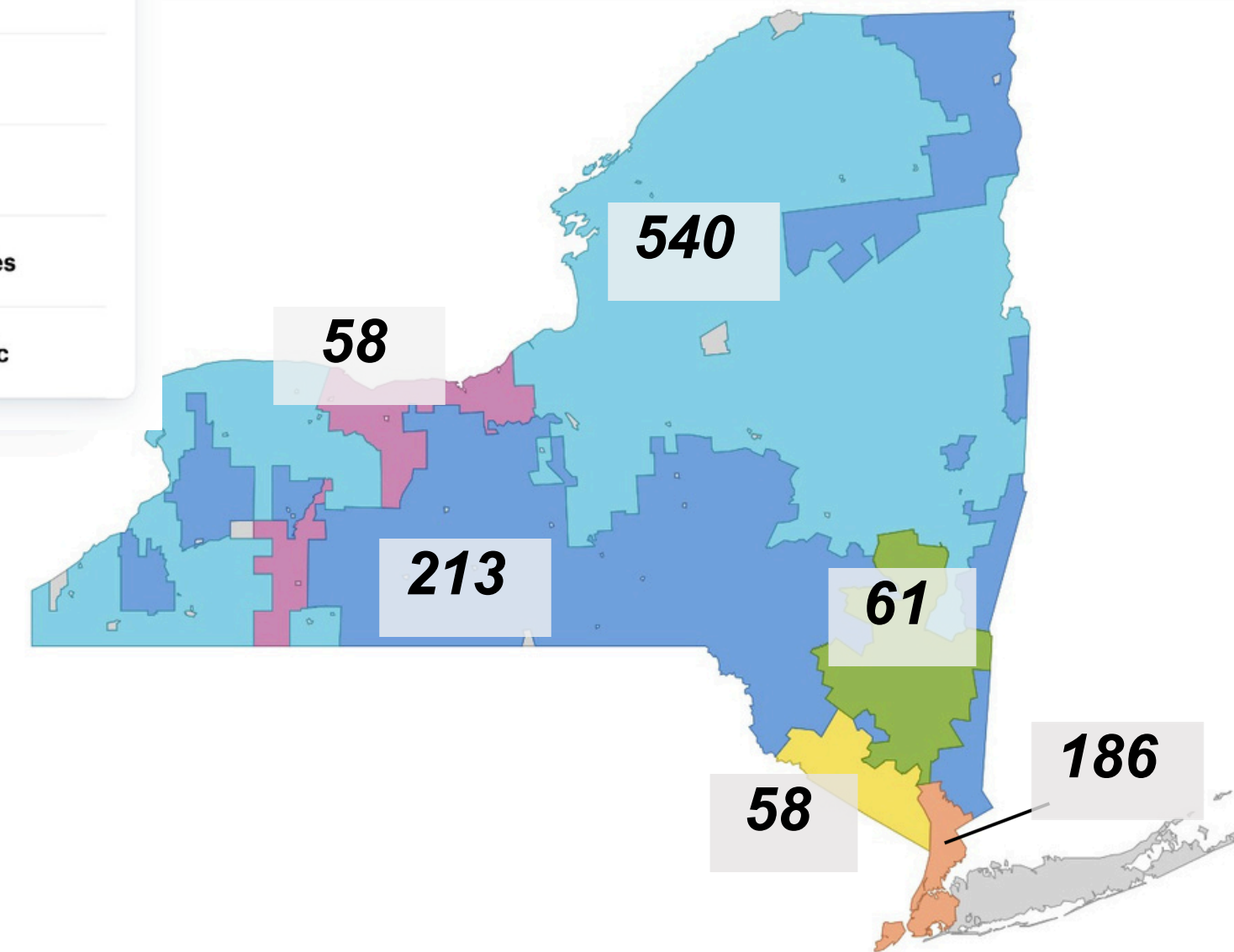


\*Some Transportation Service Providers may serve private schools

## School bus sites evaluated by utility service territory

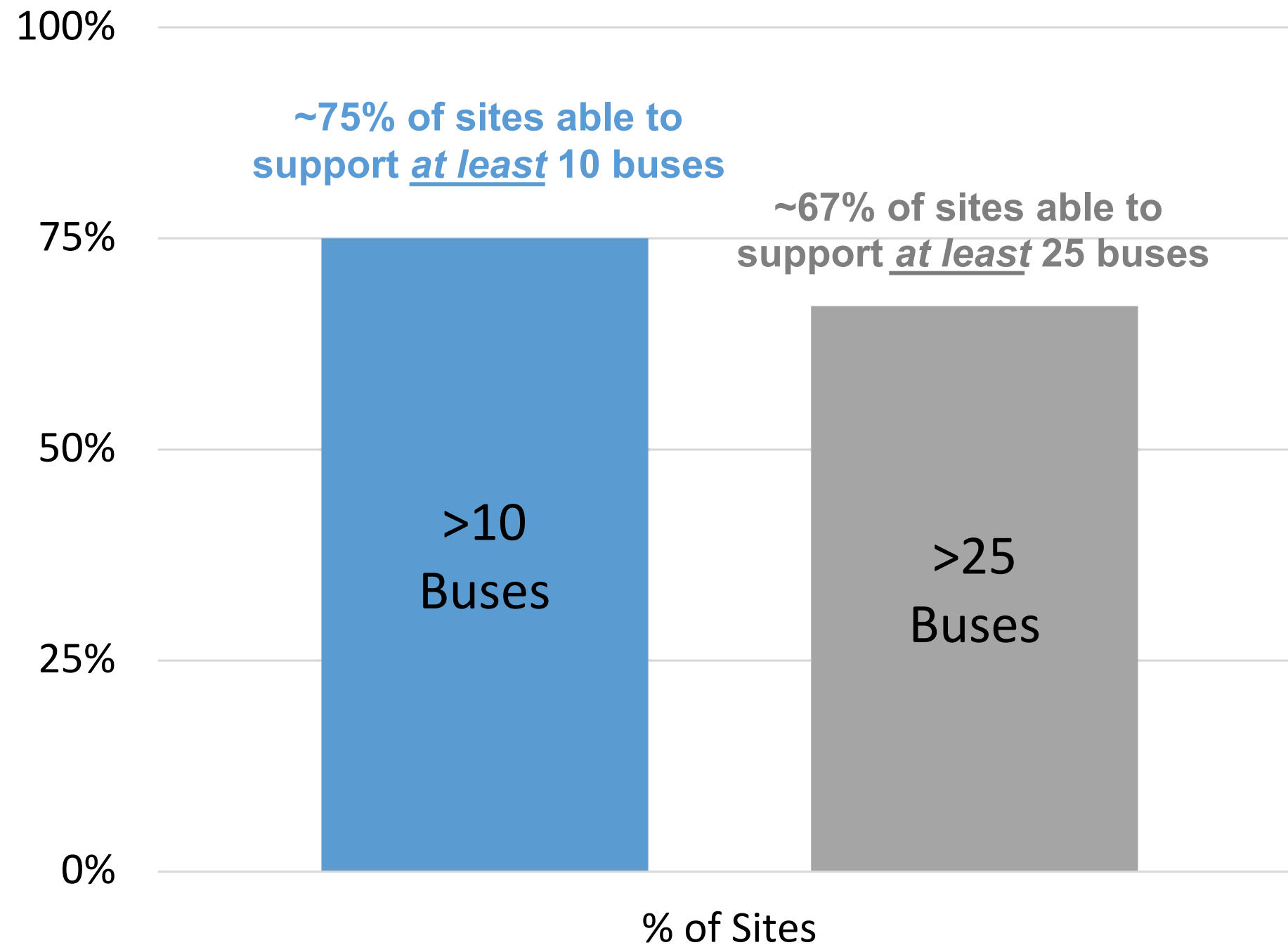
### Legend

- Central Hudson Gas and Electric
- Consolidated Edison
- National Grid
- NYS Electric and Gas
- Orange & Rockland Utilities
- Rochester Gas and Electric



# Majority of school bus sites in NY can support a pilot project today

## Sites by ability to support electric school buses w/o upgrades\*



- Most school districts start with small pilots to gain experience with ESBs, **often with no grid-side upgrades.**
- A small initial deployment is an excellent way to **gain hands-on experience with the bus and charging equipment** while additional utility upgrades are under construction to scale up (if needed).
- **Site capacity optimization** (managed charging/charger sharing) can enable existing capacity to serve more buses and potentially avoid the need for additional grid upgrades.

\*Based on an estimated charging demand of 20 kW per bus

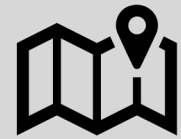
# Utility advisory services & incentives can support your project today

## 1. Planning Stage *Guiding the EV Transition*



### Fleet Assessments

Apply for assistance from your utility to evaluate your site and prepare for electric vehicle charging



### Hosting Capacity Maps

Provides a high-level view and snapshot in time of available load capacity for electric vehicle charging



### Rates Tools

Tools such as the [Con Edison Charging Cost Calculator](#) can help estimate the most cost-effective charging rate

## 2. EV Infrastructure Upgrades *To safely make sites EV ready*



### Medium- and Heavy-Duty Pilot Incentives

\$67M available in NY State to cover a portion of customer and utility side infrastructure costs

## 3. Fleet and Charger Operations *Managed charging benefiting grid*



### Operating Cost Relief

Managed charging programs ([Con Edison only](#)) and 50% demand charge rebates available at each utility

**Reach out today to request  
a free assessment!**



[dl-EmobilityAdvisory@coned.com](mailto:dl-EmobilityAdvisory@coned.com)



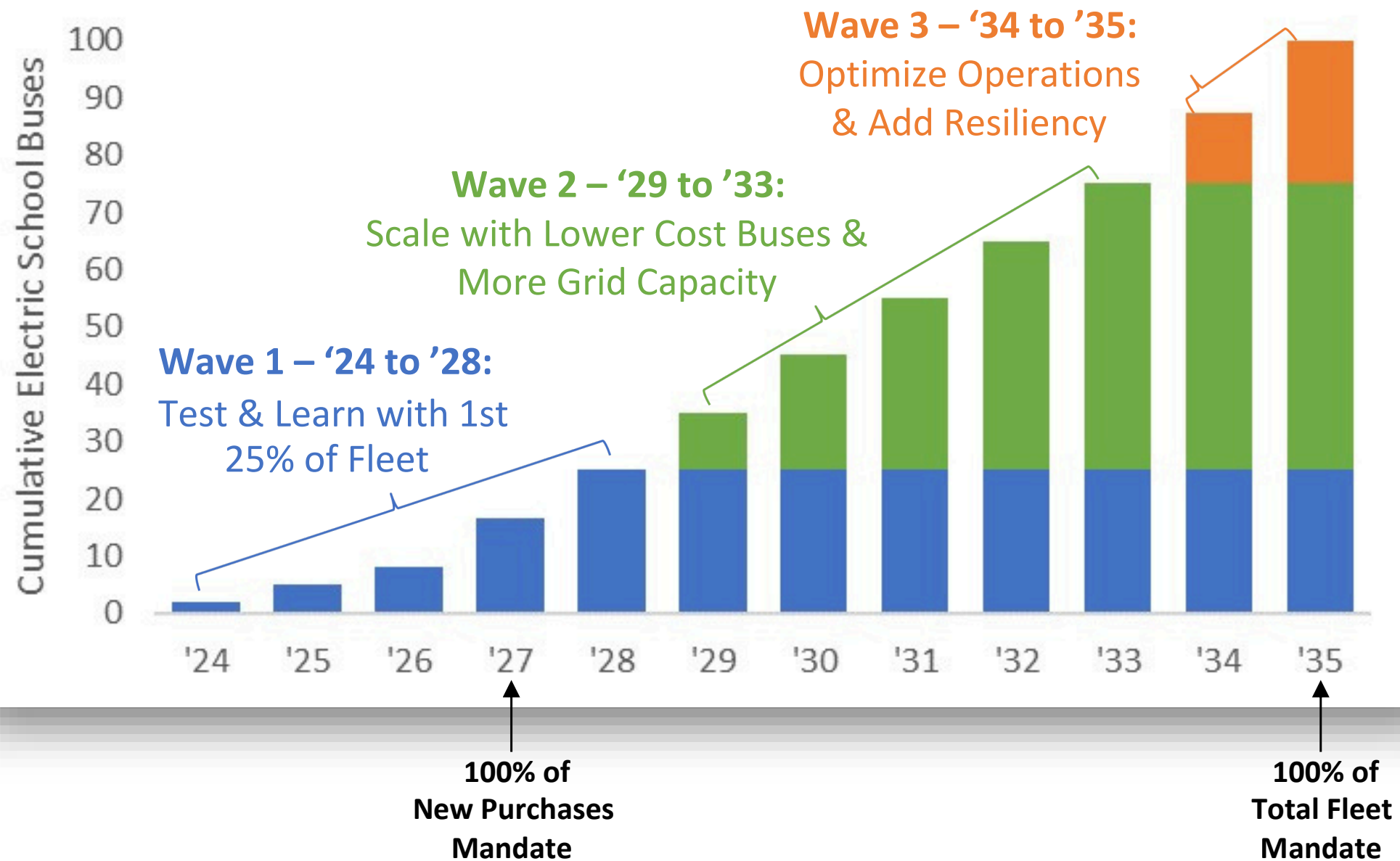
[nyseg.ev@clearresult.com](mailto:nyseg.ev@clearresult.com)



[ev@oru.com](mailto:ev@oru.com)

# Start small, plan for scale

**100 Bus Example Fleet:**  
*Cumulative Electric School Buses*



## Key Actions for Each Wave:

### Wave 1 (Now):

- Collaborate with your utility: see what capacity is available today and plan for future needs
- Order first buses for easiest routes
- Request Utility Fleet Advisory Services
- Complete a NYSERDA Fleet Electrification Plan (FEP)

### Wave 2 (Scaling Up):

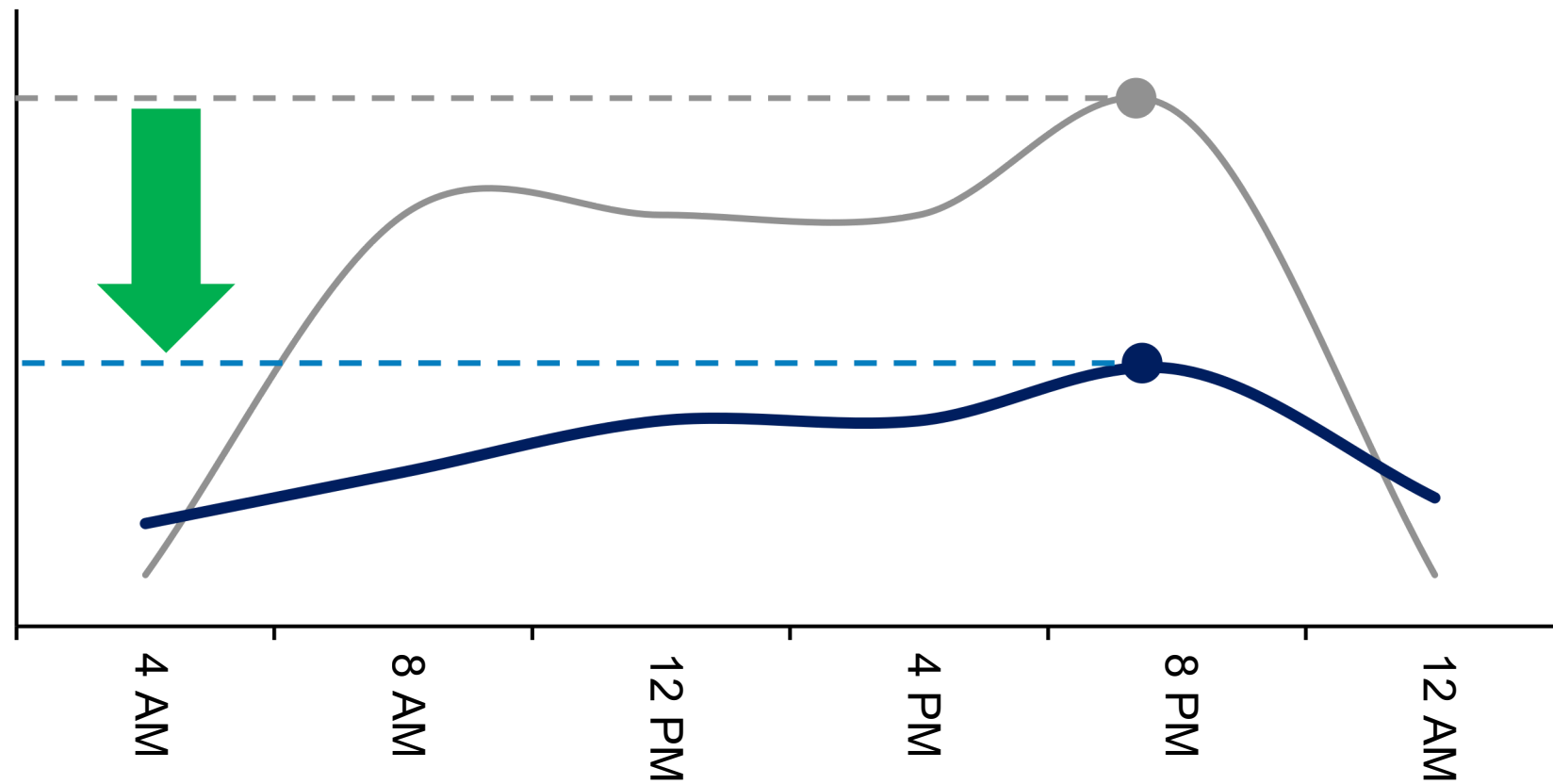
- Continue coordination with your utility on grid capacity needs and upgrades (if necessary)
- Follow FEP to scale up fleet, from easiest routes to above average mileage routes

### Wave 3 (Complete 100% Transition):

- Electrify hardest routes (field trips & travel sports)
- Consider energy solutions for resiliency
- Finish FEP to reach 100% fleet mandate by 2035

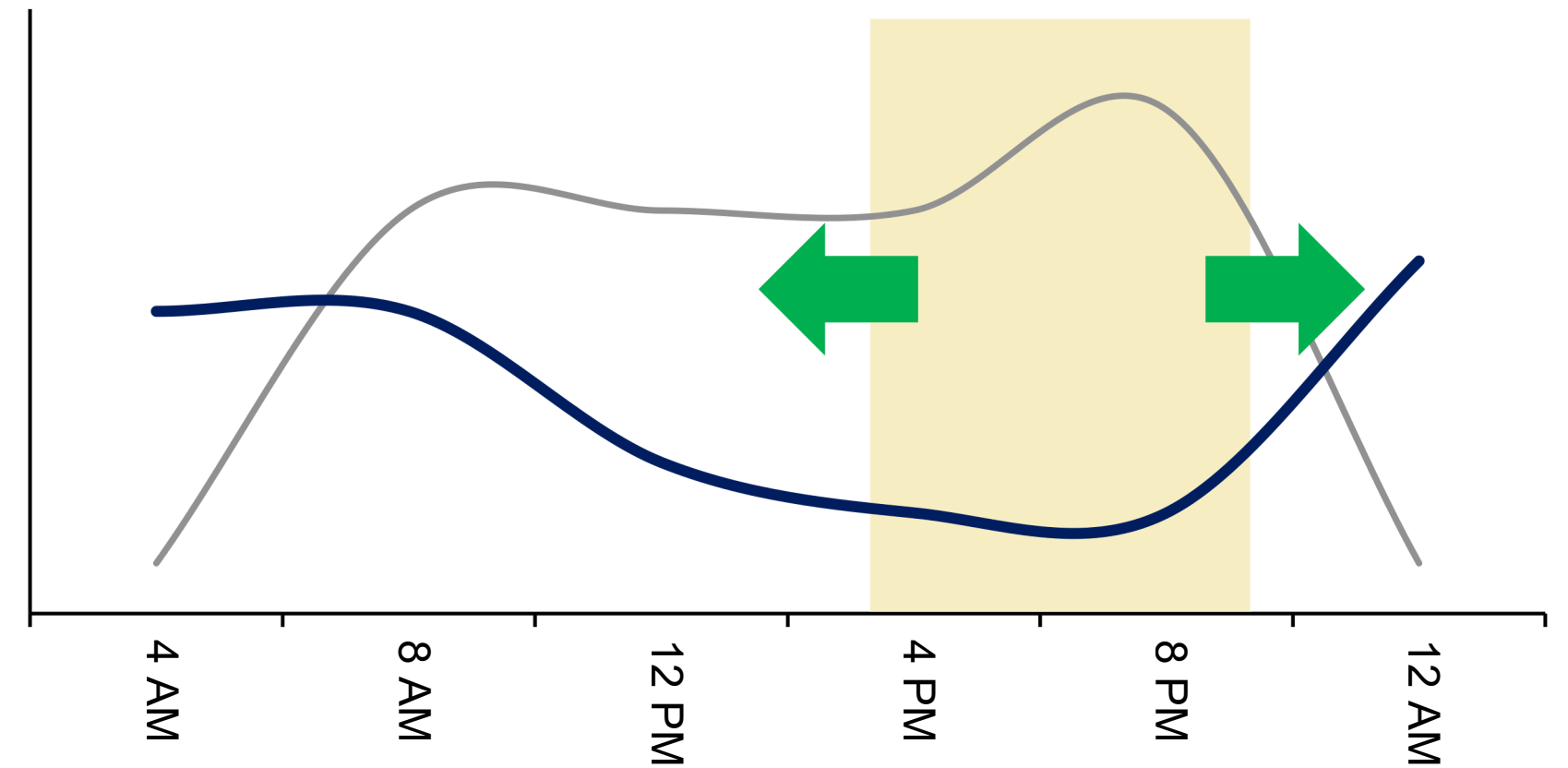
# Develop charging plans with utility impacts in mind

## Reduce peak demand



- Lower electricity bills from reduced demand charges
- Shorter energization timeline from reduced utility complexity
- Lower capital costs by installing less charging capacity

## Shift to off-hours



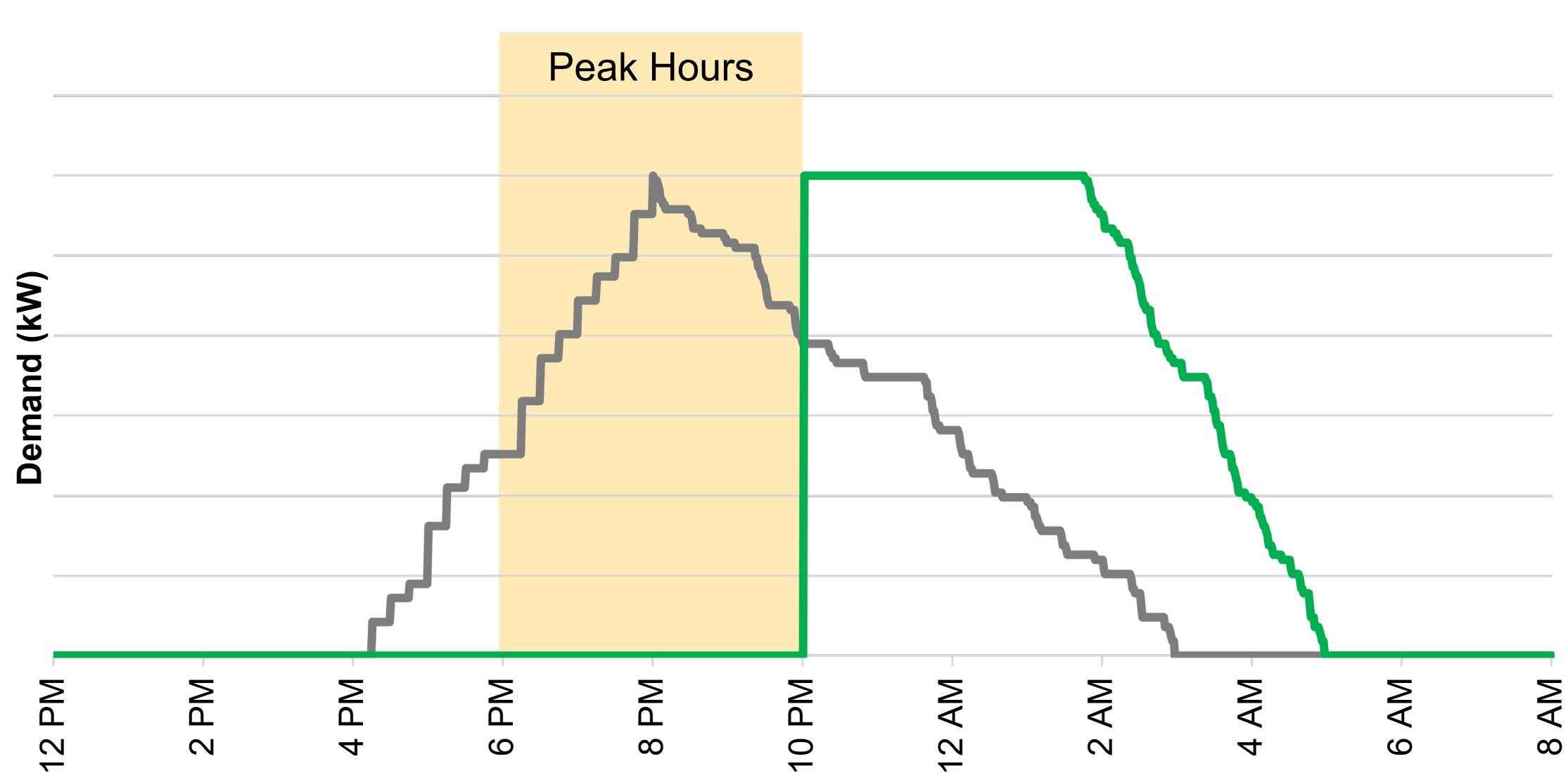
- Lower electricity bills from reduced demand and energy charges
- Additional incentives for overnight and off-peak charging from some utilities (Con Edison)

# Charging choices can have a big impact on utility bills

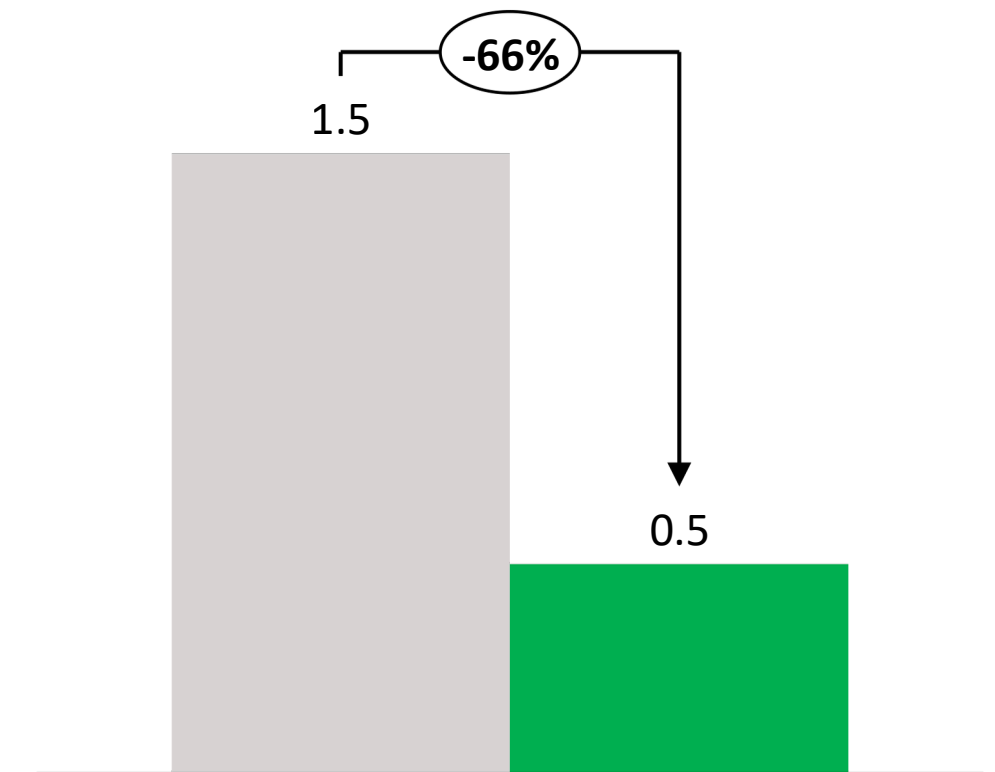
## Example Charging Scenario – 100 Type C School Buses (100x 30kW Chargers)

**Baseline**  
No Time Restrictions

**Shifted Overnight**  
Charging 10pm-8am Only



### Annual Electric Bill Cost (Millions)



Estimates are based on a Con Edison's SC9 Rate 2; modelled vehicle operational profile of 14,000 annual miles (40-75 daily miles operating Sep-Jun with 20% operation Jul-Aug and 20% operation on weekends); vehicle consumption at 1.4 kwh/mi in temperate conditions and 1.96kwh/mi in cold weather; monthly consumption levels adjusted based on historic average temperatures in NYC.