# AEG Stakeholder Challenge – Mobility & Transportation

# Commercial Fleets

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*Disclaimer: All statements are made are on behalf of the speaker and do not necessarily represent the official position of National Grid.*

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# ABOUT NATIONAL GRID

## National Grid US:

National Grid is a US energy company, delivering electric, gas, and clean energy to communities in MA, RI and NY.

## Serving 20 Million:

5,300,000 Residential +
600,000 Commercial +
300 Wholesale

= 6 million customer accounts

## Residential & Commercial Customers by Region:


1.9 million (32%)


0.5 million (8%)


3.6 million (60%)

**National Grid Ventures (NGV):**

A distinct commercial unit that owns and operates energy businesses in competitive markets in the UK and US.

**National Grid UK:**

Owns and operates the electricity transmission network in England and Wales. Operates Scottish Networks. Owns and operates gas National Transmission System in Great Britain.

# Overview

## Massachusetts Fleet Landscape

**>200,000**
Fleet Vehicles

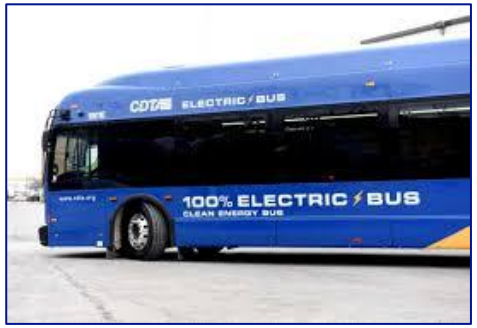
**>12,000**
Fleet Customers

**<<1%**
Currently Electrified

**30% by 2030**
State Goal

## Key Fleet Customer Segments

Transit Agencies




School Districts


Public

Commercial


*Least predictable, geo flexibility, may operate across multiple states, etc*

# Opportunity & Scope of the Challenge

## The Opportunity

- Reduce *overall* GHG emissions from fleet transportation by 4 – 20x (depending on vehicle type)
- Reduce *local* air pollution (PM2.5) from transportation, especially in disadvantaged communities
- Attract early movers in fleet electrification to MA, thereby accelerating state climate goals

## The Root Challenge

- The needs and expectations of fleet customers electrifying their vehicles are much different than traditional electric customers' needs and are significantly more unpredictable in terms of timing, scale, and location.

- E.g., An electric fleet customer could require 200 kW or 2+ MW with extremely variable timeline; equivalent of an apartment complex showing up on wheels.

# Details of the Challenge

## The Challenge

Fleet Customer needs are unique and these customers historically don't have much utility interaction. However, electrifying a depot requires *a lot* of utility collaboration (esp to do so cost effectively & quickly).

At scale could be 10+ MW per electric fleet depot.

## Typical Scenarios

Customer scopes nearly entire project with no utility involvement. Then requests large load increase with short turn-around time (can be expensive for customer).

or

Customer doesn't know where to start and requests lots of detailed information or assistance utility is not currently allowed to provide.

## Key Obstacles

1. Ensuring customers get the information *they need* upfront to adequately plan & create a roadmap for electrification.
2. Ensuring customers coordinate early and often with their utility – including communicating their roadmaps & checking in frequently.
3. Ensuring timelines and expectations are aligned between customers, utilities, and other key stakeholders.

# How Utilities Can Help & Benefits of Close Collaboration

## How National Grid (or Other Utilities) Can Help:

1. Work with key stakeholders to help streamline the process and align expectations
2. Provide insight into roughly how much electric capacity is available at the customer site *at the time**
3. Provide a dedicated point of contact to help fleet customers navigate the utility process
4. For certain customers, help create the “fleet roadmap to electrification” and/or provide funding for “make-ready” infrastructure upgrades (roadmaps currently available for 100 public customers in MA, infrastructure funding is limited).

## What National Grid *Cannot* Do:

1. Treat EV customers differently than other customers
2. Reserve electric system capacity for customers because they *might* electrify in the future

## Potential Benefits of Close Collaboration Between Fleet Customer & Utility:

1. Lower cost project & faster turn arounds
2. Better understanding of bill impacts for customer
3. Opportunity for better utilization of renewable resources (if charging is timed correctly)
4. Less frustration for all involved

# Stakeholder Prompt

***Regarding Commercial Fleets, to achieve Boston & Massachusetts' 2050 Carbon & Equity goals, the most critical obstacle to overcome is …***

***…establishing early and frequent collaboration between fleet customers and the utility during the fleet electrification planning process.***