

# Introduction to the Problem of Scaling Electrification

- Government, Industry, and Fleets are **increasingly aligning on aggressive 2030 vehicle electrification goals**
- The **pace of needed year-over-year action and investment to prepare charging sites and the grid is not clear**
- There is a **significant timing mismatch between vehicle procurement and utility grid interconnection** that is already impacting EV deployment (particularly the trucking sector)
  - Electric Trucks can be delivered in < 4-6 months
  - Utility grid interconnects can take 18–24 months (or much longer)

**THIS TRANSITION IS UNPRECEDENTED AND COMPLEX. IT REQUIRES:**

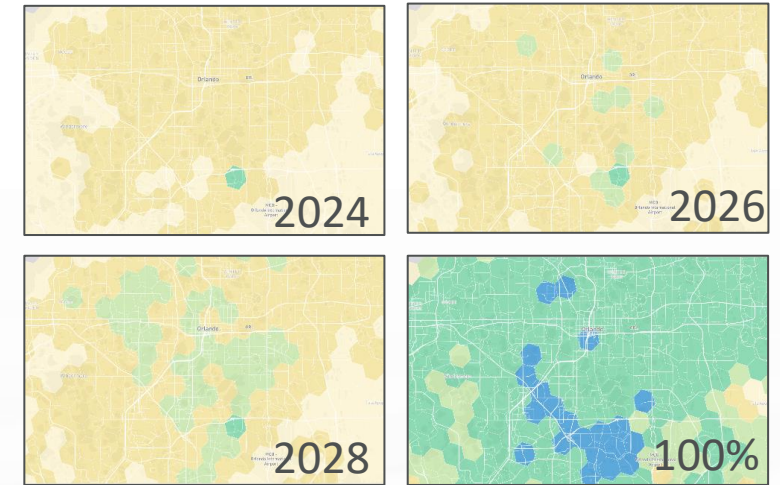
- **Extraordinary collaboration and partnering** across all the major EV stakeholder groups
- **Stakeholders must “meet in the middle” with transparent electrification plans** so early planning can occur and long-leadtime investments can be prioritized

# General Problem to be Addressed

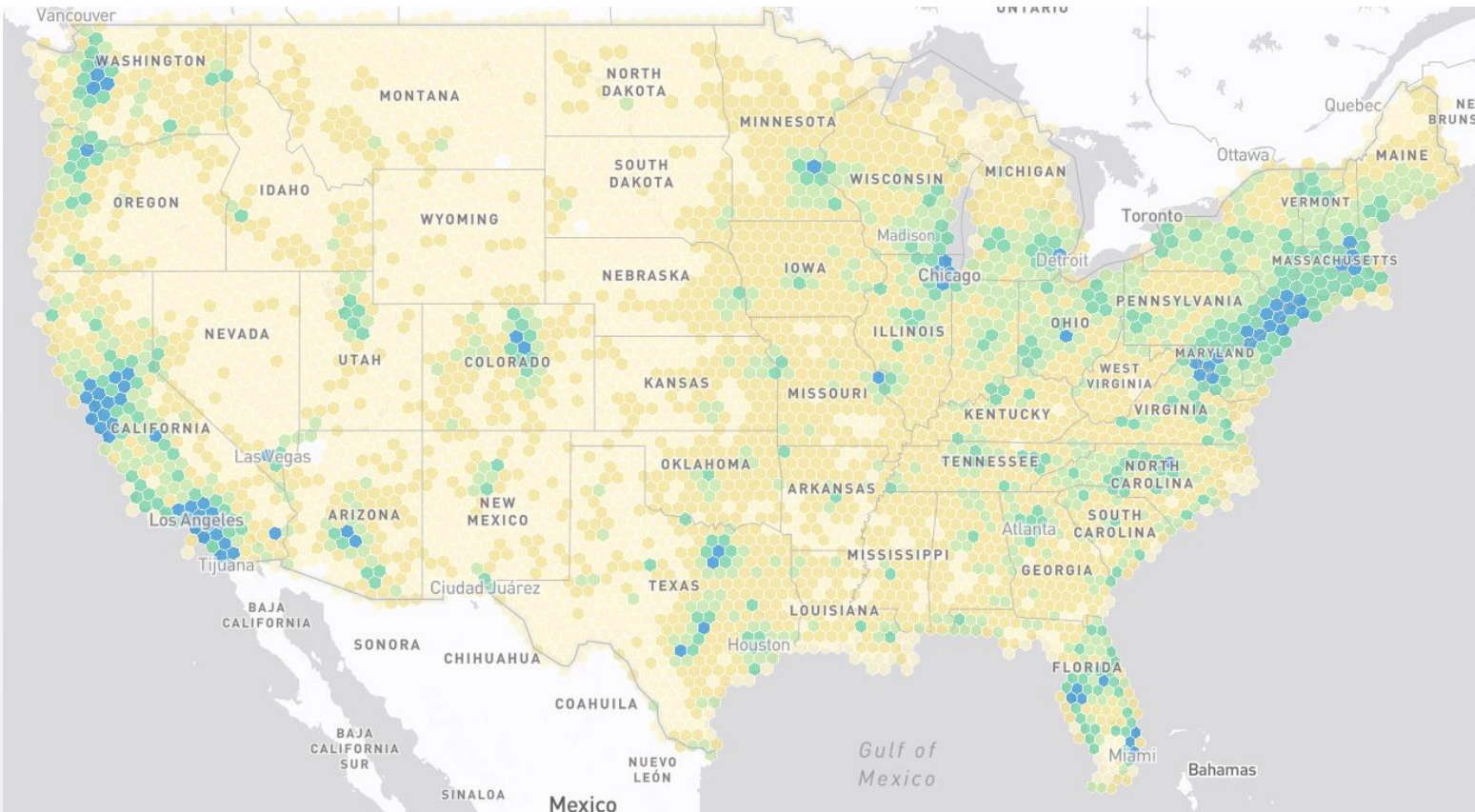
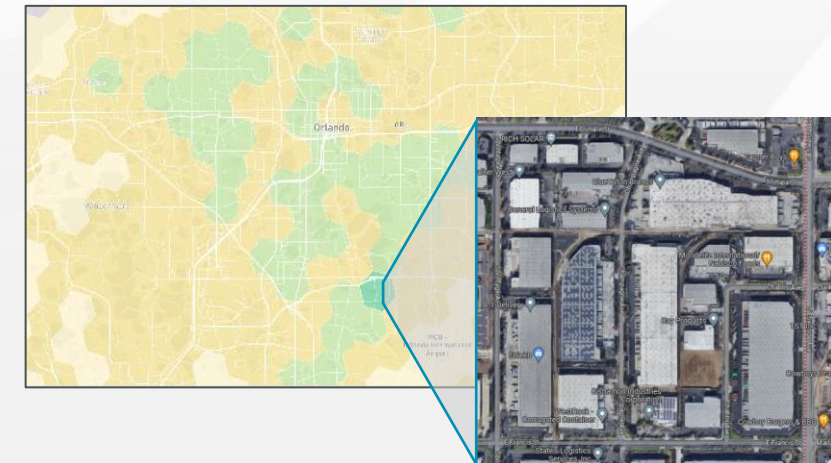
Where and when will fleet loads appear on the grid?

eRoadMAP: Interactive Load Map to Hex8 Resolution (0.28 mi<sup>2</sup>)

Fleet Electrification Over Time



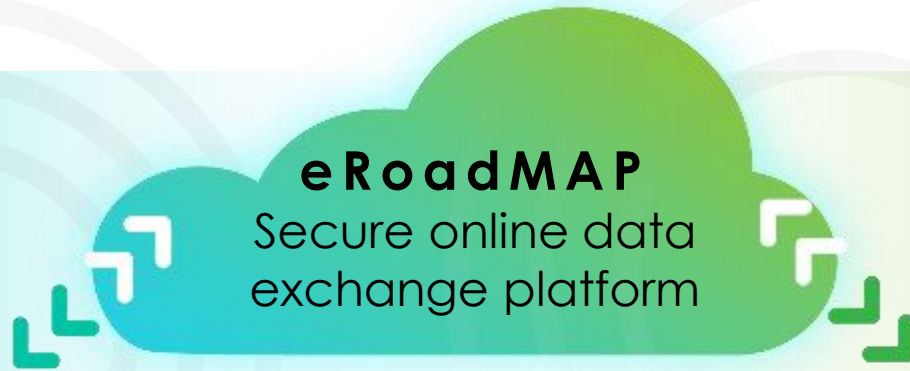
Fleet activity aggregated to Hex8 Level (protects proprietary fleet data)



# Key Obstacle to Overcome in Next 12 Months

Maps Are Only as Good as the Data We Have

2023-2030 plans defining loads, locations, timing



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**NADA** NATIONAL AUTOMOBILE DEALERS ASSOCIATION

**FIRSTstudent**

**DAIMLER TRUCK**

**PACCAR**

**VOLVO TRUCKS**

**WORLD RESOURCES INSTITUTE**

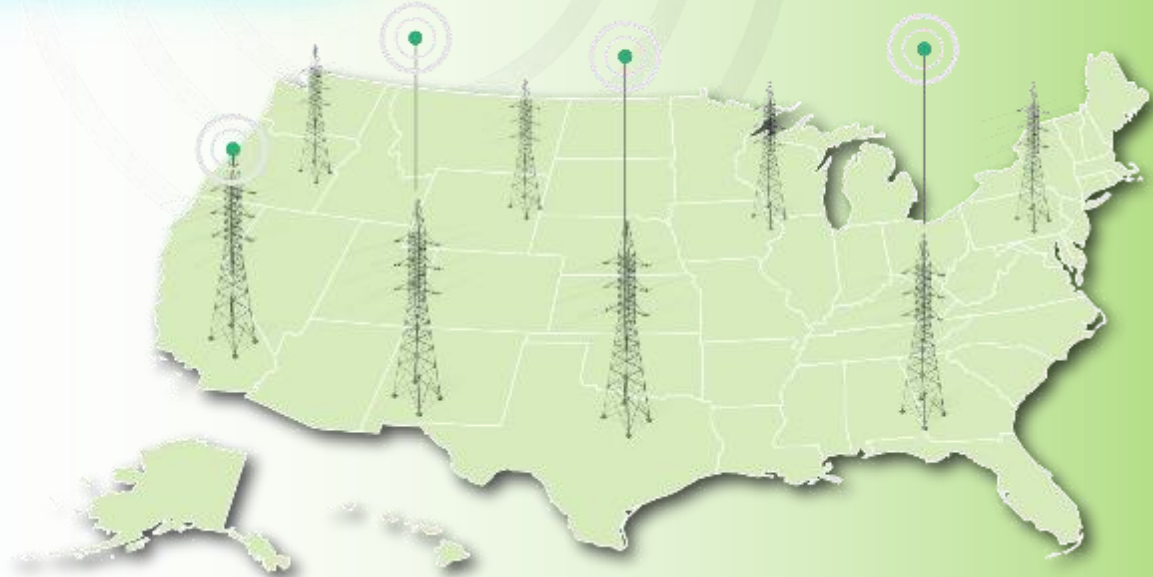
*Purchased Data:*

**INRIX**

**Experian™**

**GEOTAB ITS**

**REPLICA**





# Benefits of Addressing this Problem

- **Will drive early transparency in EV planning**
  - Enabling fleet/utility conversations to start years in advance – not months
- **Will speed up grid interconnects to match EV procurement timelines**
  - Remove this barrier to vehicle adoption (particularly MDHD)
- **Will help identify and prioritize no-regret grid investments**
  - For 3,200 utilities to begin planning well ahead of the traditional “service request”
  - For regulators to recognize the need for proactive grid investments
- **Will enable EVs to scale by eliminating arguably the biggest barrier today**

**Will inform EPRI’s online, publicly-available maps for all stakeholders to use  
(which will benefit you, too!)**

# The “Ask”

Regarding fleet electrification, a critical obstacle to collectively overcome in 12 months is ...

## ... the need for fleet data from fleet operators to inform EVs2Scale2030.

- Reach out to the largest National, Regional, and Local fleets (all can significantly impact utility distribution feeders)
- Explain the need to begin today to transparently share with EPRI (in a secure database):
  1. Current fleet information (# vehicles, type of vehicles, dwell locations) = future load
  2. Fleet electrification plans (# vehicles by year by location, type of vehicles, type of charging)
- Fleets to provide data at the Hex8 (feeder) level or provide data at the street-level (and EPRI will aggregate up to Hex8 to anonymize the fleet operator)
- Connect the fleet to the EPRI team ([bgross@epri.com](mailto:bgross@epri.com)) - we'll handle NDAs, Data Transfers, ...

### Let's Do This!

**How many fleet operators can we collectively get to provide fleet data to inform EVs2Scale2030 in the next 12 months?**

# EVs2Scale 2030



# Thank You