

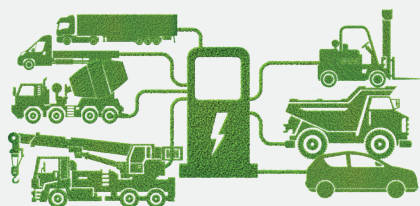


## HOW TO SUCCESSFULLY NAVIGATE THE TRANSPORTATION TRANSFORMATION

# Embracing Transportation Electrification

Electrification is the biggest lever society has for meeting decarbonization goals. Utilities play a pivotal role in enabling electrification by designing the grid with the flexibility and resiliency to quickly mitigate load spike impacts. To do so, an understanding of both where the load increases will be and how to best accommodate them is needed.

Quanta Technology has the breadth and depth of experience to help. Our knowledge is practical and acquired from impact analysis and technology evaluations. We understand utility operations and utilize powerful tools and testing labs to help assess impacts to the grid, which will guide our design of a viable road map to help prepare your organization for the future of transportation.



Quanta Technology can help you enable transportation electrification on your grid by identifying the:

1. Types of users and their visions, plans, and budgets.
2. Load types and characteristics.
3. Impacts from these loads on the electrical system.
4. Mitigating solutions and technologies.

**EV transportation requires unique solutions and approaches.** Quanta Technology can help answer questions like:



**How to achieve collaboration** among fleet owners, EV charging developers, utilities, regulators, city officials, vehicle manufacturers, etc. for most efficient technology (e.g., need for fast charging) and integration solutions?

**How to locate where, when, and how big loads will be from fleets** (road maps) (e.g., heavy-duty fleet chargers can be 150x the size of light-duty vehicle chargers)?

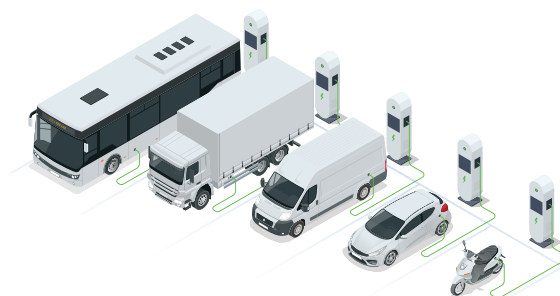
**How to disaggregate load data** to specific feeders and substations?

**Who pays** for interconnection, tariff, and upgrade fees if customers are mandated to electrify?

**How to manage the burdens of costs, tariffs, interconnection fees?** These may “box” utilities as a the barrier, truncating one of the largest opportunities for utilities in decades.

**What is the expected pace of adoption?** Energy justice and decarbonization may mandate utility customers to electrify, increasing the speed of implementation.

**What are the best solutions to manage these new loads?**



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and EV Adoption.”](#)



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Load Growth”](#)



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website.**



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Quanta Technology  
expert today.**

**1 Perform a bottoms-up analysis to identify site locations.**

- Utilities are challenged to “disaggregate” regional data.
- First is finding the facilities, which is accomplished by utilizing industry code data.

**2 Forecast adoption and estimate loads.**

- Fleet centers are not all the same.
- How many chargers?
- Size of chargers?
- Charging profile of individual center?
- Fleet adoption pattern?

**3 Map facility loads to feeders,  
substations, and transmission to  
determine impacts.** Quanta can:

- Link loads to grid points via least-distance algorithms.
- Add new EV loads to current load and measures against maximum capacity.

**4 Evaluate mitigation and DER  
deployment options and compare  
benefits against infrastructure  
upgrades.** Quanta uses proprietary  
tools that allow our team to  
optimize mitigation for both utility  
and facility solutions.

**5 Offer regulatory support to gain acceptance of the  
optimal solution approach.** Modeling becomes the  
basis for helping utilities gain approval for optimal  
infrastructure and DER solution approaches.



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