FREEWIRE

EV Fast Charging
Reducing Costs and Speeding Deployment

NECPUC – Shark Tank
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Rate of EV fast charging deployment is too slow

The grid is old and increasingly constrained

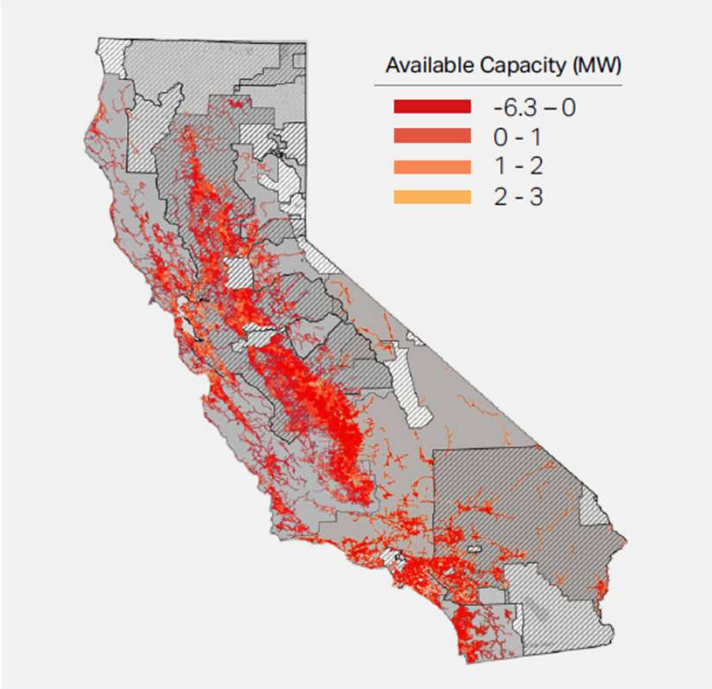


Figure 1: California
EDGE Capacity Analysis and data gaps. Red lines indicate areas where the grid cannot accommodate additional load without any thermal or voltage violations.

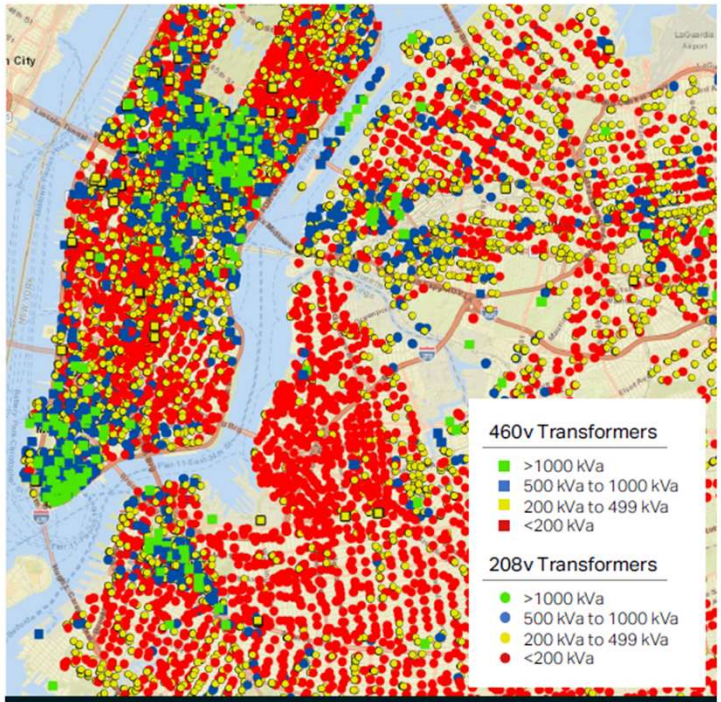
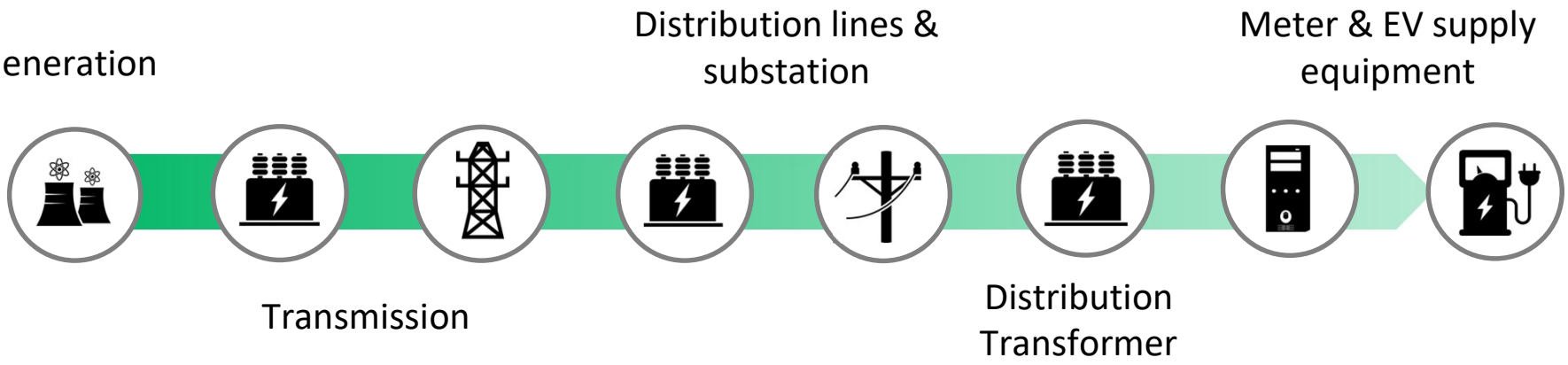


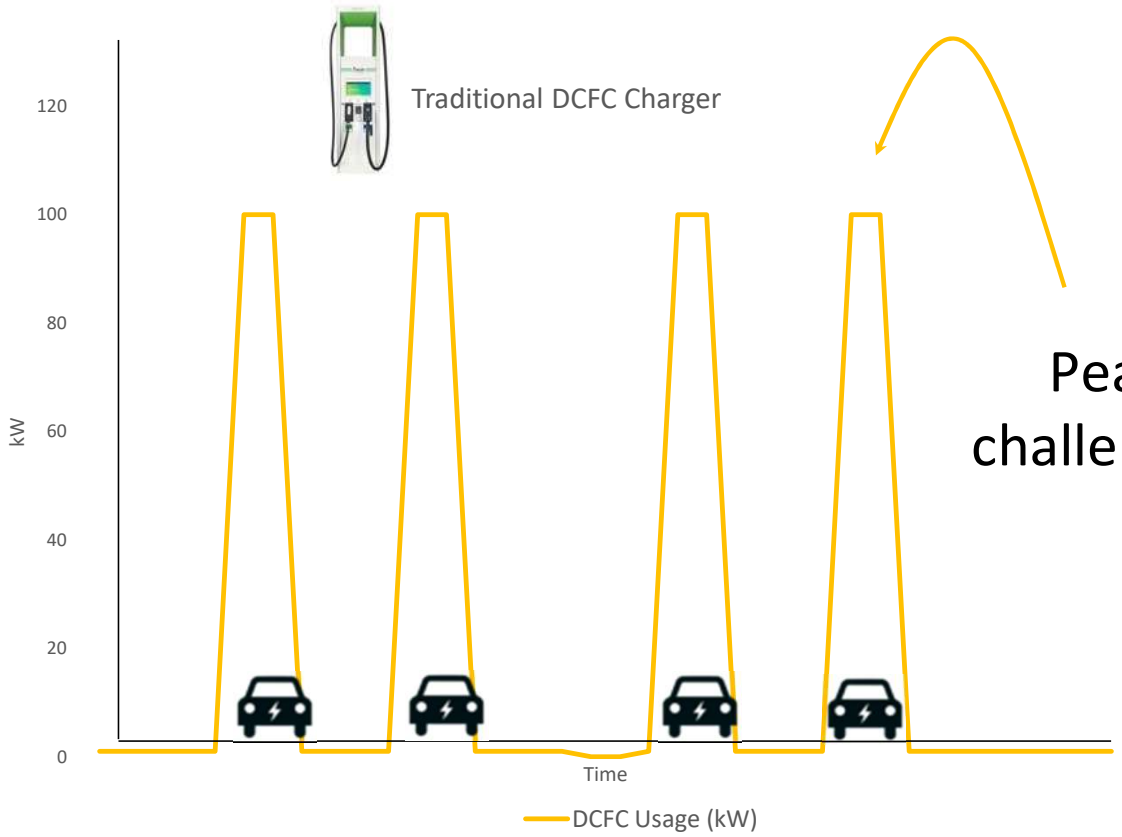
Figure 2: New York City
Con Edison map of sites with sufficient capacity to host EV charging. Red indicates the lowest level of hosting capacity available.



Cost and Time To Build Increase Upstream

$125 billion through 2030 to upgrade the grid for EVs – McKinsey

High and unpredictable peak demand



Peak demand presents grid challenges and economic viability

Overcoming Barriers – EV Charging + Battery Storage

NEXT-GEN POWER CONVERTER
Proprietary power conversion technology with silicon carbide architecture & 99% efficiency.

ADAPTIVE BATTERY PACK
Proprietary battery pack with flexible architecture that switches between 400V & 800V.

200 kW fast charging

200 kW to charge 1 EV
100 kW to charge 2 EVs simultaneously

160 kWh battery-storage

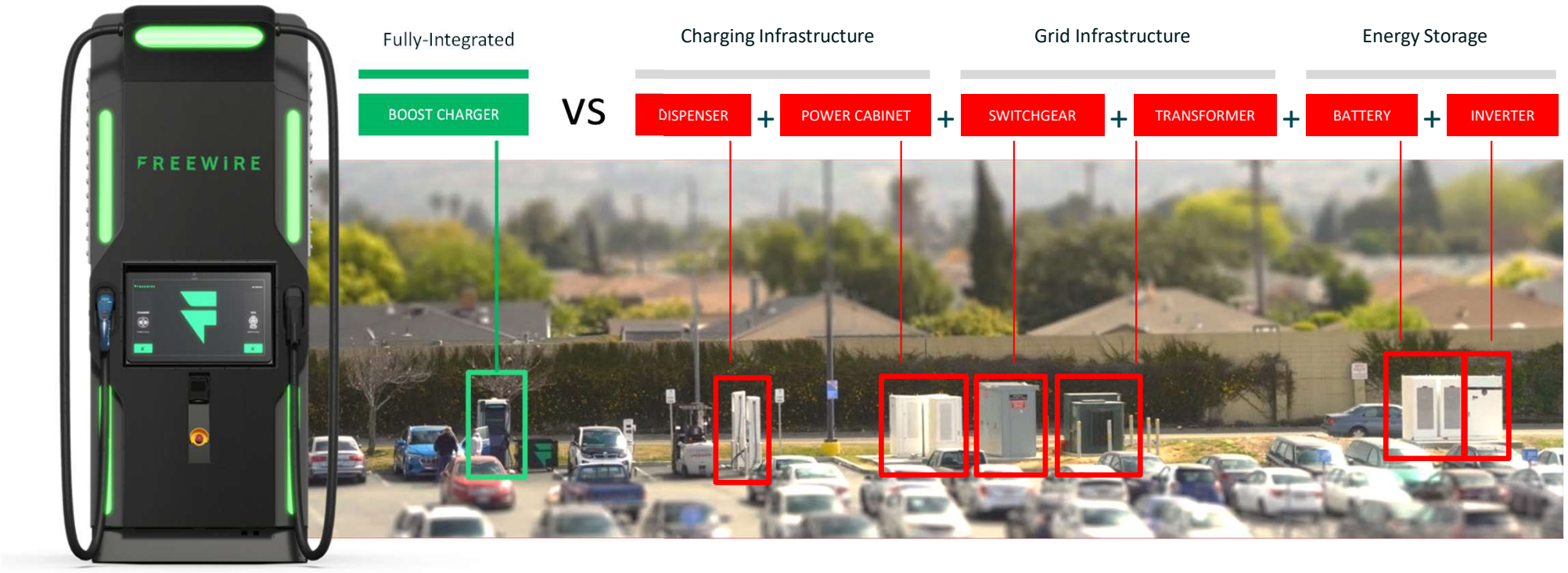
Li-ion energy storage boosts grid power

Low-voltage grid

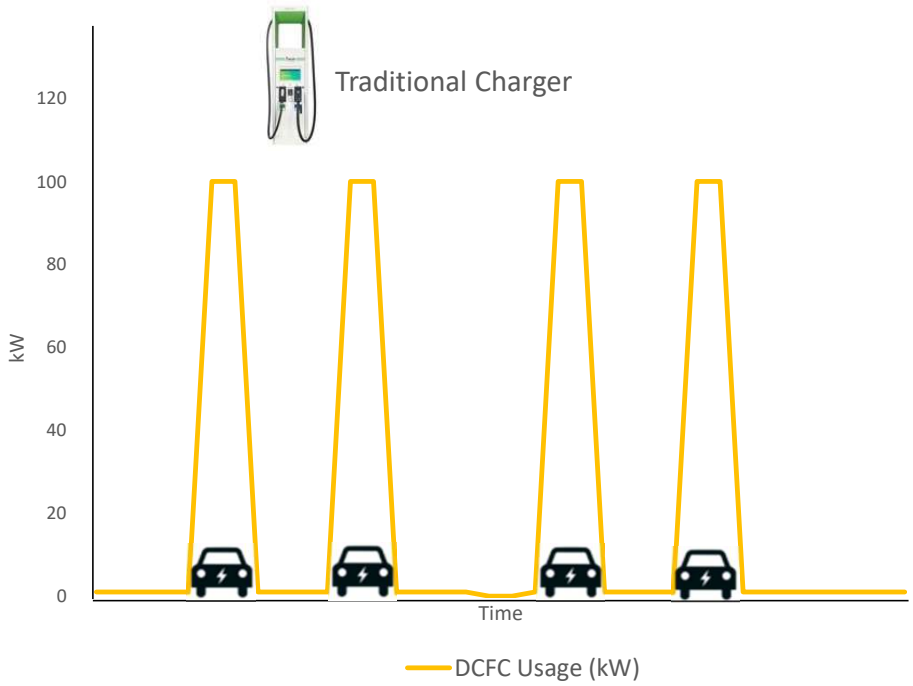
Connects at 208V or 240V, same as Level 2

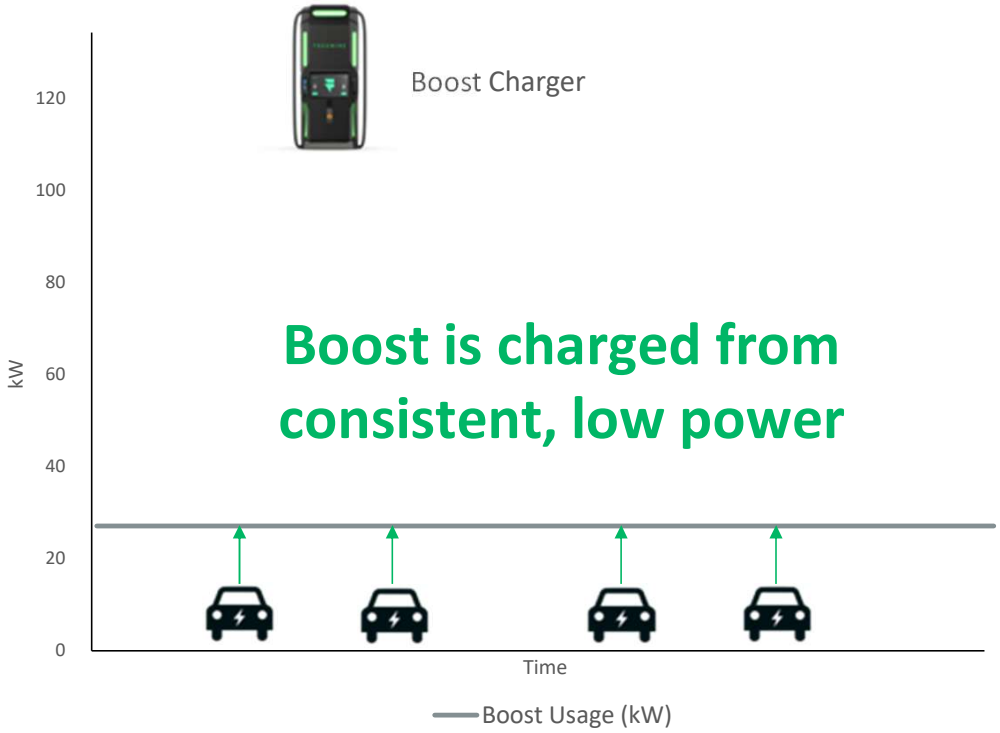
ADVANCED CONTROL SYSTEM
Optimized to enable distributed energy services.

Lower cost, less space, quicker install, lower grid impact



Technology solution to peak demand & demand charges





Thank You!

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