

KPMG Electric Vehicle Infrastructure Geospatial Tool (KELVIN)

A dynamic geospatial analytics tool that incorporates a number of public and private datasets

What is **KELVIN**?

The **K**PMG **El**ectric **V**ehicle **In**frastructure Geospatial Tool (KELVIN) supports holistic programmatic planning for clients looking to fund or deploy EV charging infrastructure. Our team's ability to rapidly overlay and join data layers allows us to tailor our analysis to specific client priorities (see next page for further detail).



The idea behind KELVIN:

EV charging represents either a regime change for a lot of organizations or completely new territory – and many of this is driven by the Federal government acting as a focal point for deciding where funding goes.

KELVIN analyzes patterns from combined layers of data to address location-based questions such as:

- Which States / locations should they prioritize deployment to maximize Federal funding?
- Which locations offer the highest potential utilization and return on investment?
- Which locations best service underserved communities, again tying to maximizing Federal funding under Justice40?
- What are the drivers affecting our business outside of the confines of a specific site location?

KELVIN answers key questions posed by a range of EV market participants:



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KELVIN contains base data layers, with optional custom analytical capabilities:

Custom analytics layers

Analytics tailored to clients' priorities, operations, and relevant data to generate custom insights based upon, but not limited to, base data layers described below.

Build-in indices for baseline assessment

Baseline indices including EV charger utilization, Zip Code-level prioritization based on future spot load prediction, and site-level candidacy for Federal grant assistance.

Energy infrastructure data

Datasets related to power substation locations / density, retail electricity service provider territories, and grid capacity.

Future EV charging demand

Annual forecasts of EV charging demand based upon EV charger supply growth, traffic patterns, site demographics, and EV adoption profiles.

Base layer

A national database of USDOT-approved Alternative Fuel Corridors, passenger and fleet EV registrations, gas stations, existing chargers, and charging network providers.

KELVIN can address various use cases, including:

Market Participants

05

04

03

02

01

Private market entrants
EV market assessment
Market entry – (e.g., where to play, how to play)
Growth strategy
Public agencies
EV master planning
Infrastructure deployment
Infrastructure deployment Fleet conversion

Fleet owners / operators EV market assessment Fleet conversion strategies Fuel consumption and forecasting

Utilities

EVSE coordination Transmission and distribution planning EV market assessment

Benefits to our clients include:

Rapid screening for commercially optimal site candidates

Pinpointing service gaps within underserved communities

Triaging government funding requirements

In-depth analysis on site characteristics to determine future risks

Transferrable analysis to other similar infrastructure classes (e.g., broadband)

EV registrations and existing DCFC and Level 2 chargers







Please reach out to schedule a KELVIN demo:



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