

# 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:

#### 01 Fleet operators

Which potential charging locations support my fleet requirements?

Which sites can help maximize Federal funds?

What locations have adequate grid capacity?

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#### 02 Utilities

When and where will we need **new interconnections?** 

Which locations are vulnerable to climate risk?

# 03 OEMs and manufacturers

Which States / locations should I prioritize deployment?

What will **demand profile** look like in specific geographies?

Which site candidates offer promising utilization?

#### 04 Property owners

Which sites can maximize Federal funds?

What future risks may emerge from **current site conditions**?

#### 05 Public organizations

Where are communities at risk of being underserved?

Where are the optimal locations to close service gaps?

# 06 EPCs and network operators

Which site candidates offer promising utilization?

**Where** could there be opportunities for potential partnerships?

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

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#### **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.

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#### **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.

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#### **Energy infrastructure data**

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

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#### **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.

#### **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)

# **KELVIN can address various use cases, including:**

#### **Market Participants**

#### **Private market entrants**

EV market assessment

Market entry - (e.g., where to play, how to play)

Growth strategy

EV market assessment

Fleet owners / operators

Fleet conversion strategies

Fuel consumption and forecasting

# EV registrations and existing DCFC and Level 2 chargers



#### **Public agencies**

EV master planning

Infrastructure deployment

Fleet conversion

Procurement and P3 strategy

State-wide decarbonization

#### **Utilities**

**EVSE** coordination

Transmission and distribution planning

EV market assessment

#### **Alternative Fuel Corridors** with 1-mile Buffers





## Please reach out to schedule a KELVIN demo:



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