

RVARC EV Infrastructure Implementation Strategy

How to Interpret the Map Results

The RVARC EV charging station siting analysis produced two parcel-level maps. Within the maps, parcels are scored based on Step 1 (CBG trip data) and Step 2 (proximity score modifiers) to get their charging station suitability score. The results of the analysis for all three scenarios, outlined in Step 1 of the Methodology, are displayed by priority and percentile scores. High priority parcels for deployment are red, and low priority parcels for deployment are blue. Click the Legend in the top right corner for a breakdown of percentiles and corresponding map colors.

Note that parcel scores may not change dramatically between scenarios; certain parcels score high or low no matter what, based on the data. For example, some high scoring parcels will remain high scoring across scenarios because they receive the majority of trips and are located near proximity modifiers. Grey areas indicate areas that were excluded from the analysis.

Note that results are divided into two categories:

- **Results normalized by Jurisdiction:** the resulting percentiles are adjusted based on Jurisdiction parcel scores
- **Results normalized by RVARC Study Area:** the resulting percentiles are adjusted based on RVARC Study Area parcel scores

For each category, there are three scenarios:

- **Scenario A:** Prioritizing Level 2 chargers with high utilization
- **Scenario B:** Prioritizing DCFCs with high utilization
- **Scenario C:** Prioritizing Level 2 chargers with equity focus

Within the EV charging station priority locations map, users may select different parcels and view their suitability scores. Each parcel will have a variety of fields that show users different pieces of information related to the parcel and its score. These fields provide general information about the parcel the user has selected:

- **Jurisdiction:** the jurisdiction in which the parcel is located
- **Census block group:** the census block group to which that parcel belongs
- **Total level 2 chargers nearby:** the number of Level 2 chargers within half a mile of the parcel
- **Total DC fast chargers nearby:** the number of DCFC within half a mile of the parcel

Each parcel description will display its Step 1 score (the amount of traffic the CBG it is located in experiences):

- **Scenario # rank:** parcels will have scores ranging between 1 and 6. Low traffic parcels will have a score of 1, and high traffic parcels will have a score of 6.

The parcel description will also have the following proximity score modifier fields:

- **Level 2 charger score:** If there are existing Level 2 chargers within ½ mile of the parcel, this proximity score modifier will be negative, decreasing the parcel's suitability score since it is already located near existing infrastructure. If there is no nearby infrastructure, the parcel will score 0.
- **DC fast charger score:** If there are existing DCFCs within ½ mile of the parcel, this proximity score modifier will be negative, decreasing the parcel's suitability score since it is already located near existing infrastructure. If there is no nearby infrastructure, the parcel will score 0.
- **Near Justice40 tract?:** If the parcel is located in or within ¼ mile of an Justice40 tract, it will receive a score of 1. If it is not located in or near a Justice40 tract, it will score 0.
- **Near library?:** If the parcel is located in or within ¼ mile of a public library, it will receive a score of 1. If it is not located in or within ¼ mile of a public library, it will score 0.
- **Near MFH?:** If the parcel is located in or within ¼ mile of MFH, it will receive a score of 1. If it is not located in or near MFH, it will score 0.
- **Near park and ride?:** If the parcel is located in or within ¼ mile of a park-and-ride, it will receive a score of 1. If it is not located in or near a park-and-ride, it will score 0.
- **Near highway ramp?:** If the parcel is located in or within ¼ mile of a highway ramp, it will receive a score of 1. If it is not located in or near a highway ramp, it will score 0.
- **Near trailhead?:** If the parcel is located in or within ¼ mile of a trailhead, it will receive a score of 1. If it is not located in or near a trailhead, it will score 0.
- **Near transit stop?:** If the parcel is located in or within ¼ mile of a transit stop, it will receive a score of 1. If it is not located in or near a transit stop, it will score 0.
- **Replica score rank:** Travel demand is estimated based on the number of non-home-based trips at the CBG scale on a 1-6 scale, where 1 is low travel demand and 6 is high travel demand.

Note: A proximity score of 0 is not a bad thing. This just means the parcel does not have certain characteristics that would make it more or less ideal for EV charging station deployments at this time.

The parcel description will also indicate the parcel's final score, or the score that determines how suitable a particular parcel is for EV charging station deployments. This is the score that is visually displayed on the map. It can be found in the following field:

- **Scenario # final score:** parcels will have scores ranging between -5 and 10. The lowest priority parcels will have a negative score, due to their proximity to existing chargers, and high priority parcels can have a maximum score of 10. Most parcels will fall somewhere in between.

- **Scenario # quantile rank score:** parcels will have a value of 1-10, with 10 representing the 91st to 100th percentile of parcel scores (highest scoring for EV siting) and 1 representing the 0-10th percentile (lowest scoring).
- **Scenario # quantile range:** The raw ranges of values that fit into each quantile rank score. For example, the 91st-100th percentile represents final score ranges of 6-10 for Scenario A, normalized by jurisdiction.

In addition, filters based on proximity modifiers dependent on the selected Scenario have been added for reference.