

# CHARGING INFRASTRUCTURE MAPPING AND MODELING

2022 ELECTRIC VEHICLE DC FAST CHARGING COMMUNITY SOLICITATION

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

**BUREAU OF MOBILE SOURCES** 

# BACKGROUND & DEVELOPMENT

#### **Geographic and Demographic Considerations:**

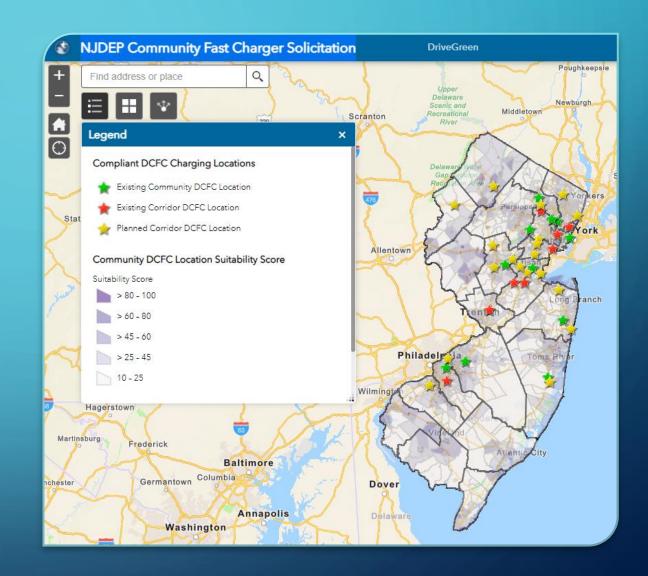
- MJ Bradley & Associates developed a tool (ILIT) to evaluate what locations may be suited for electric vehicle fast charging infrastructure.
- DEP unitized ILIT to receive a "suitably score" for each census tract within all NJ counties. Each tract was given a score out of 100 based on their population density and commercial activity relative to each other tract in the county.
- Locations of planned and existing compliant (50kw or greater) DCFC stations are mapped.



### NJDEP COMMUNITY SOLICITATION GIS MAP

#### Map Overview

- This interactable heatmap displays the suitably score for each census tract and displays the locations of the DCFC infrastructure.
- Each tract is assigned a color corresponding with the it's suitability score, the darkest tracts having the highest scores.
- Census Tracts and DCFC Infrastructure are automatically overlayed on the map. Each of these tracts and location points can be clicked on, which will pull up more information



#### **FEATURES**

- Layer List This tool allows specific layers to be selectively displayed. The tract data, charging locations, county boundaries, and municipality boundaries may be switched on or off.
   Tool Icon:
- Search Tool This search function can input an address or place, pinpoint the location, and zoom in.





- Base Map Gallery This tool will display the section of base maps of which there are 6 map options. There are 2 Base Maps of note:
  - Navigation This Base Map is selected by default and best displays the Census Tract colors to be the most visible by contrast.
  - OpenStreetMap This Base Map can be used to easily locate businesses, public spaces, and other locations details by use of zoom function.

Tool Icon:

## EXCEL DATA TABLE

- This table displays Suitability
   Score data generated with the ILIT
   Model and includes the same tract
   data as the DEP map.
- Tract data is grouped alphabetically by county. Utilizing the dropdown menus for each column, user can sort and filter data.
- These table tools can be used to:
  - Find the tract score of a specific municipality
  - Isolate the highest suitably scores through the state
  - Organize the data in whatever way is most suited to the user

#### NJDEP Bureau of Mobile Sources 2022 Community Solicitation Data Table

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County Tier	County Name	Tract ID Number	Municipality	Final Score
Tier 1	Atlantic	Tract 5	Atlantic City	100
Tier 1	Atlantic	Tract 11	Atlantic City	100
Tier 1	Atlantic	Tract 15	Atlantic City	100
Tier 1	Atlantic	Tract 2	Atlantic City	95
Tier 1	Atlantic	Tract 3	Atlantic City	95
Tier 1	Atlantic	Tract 4	Atlantic City	95
Tier 1	Atlantic	Tract 12	Atlantic City	95
Tier 1	Atlantic	Tract 19	Atlantic City	95
Tier 1	Atlantic	Tract 23	Atlantic City	95
Tier 1	Atlantic	Tract 25	Atlantic City	95
Tier 1	Atlantic	Tract 24	Atlantic City	90
Tier 1	Atlantic	Tract 14	Atlantic City	85
Tier 1	Atlantic	Tract 119	Pleasantville	85
Tier 1	Atlantic	Tract 1	Atlantic City	80
Tier 1	Atlantic	Tract 122	Pleasantville	80
Tier 1	Atlantic	Tract 128.01	Somers Point	80
Tier 1	Atlantic	Tract 101.02	Brigantine	75
Tier 1	Atlantic	Tract 131.01	Margate City	75
Tier 1	Atlantic	Tract 131.02	Margate City	75
Tier 1	Atlantic	Tract 101.04	Brigantine	70
Tier 1	Atlantic	Tract 101.05	Brigantine	70
Tier 1	Atlantic	Tract 121	Pleasantville	70
Tier 1	Atlantic	Tract 127.01	Somers Point	70
Tier 1	Atlantic	Tract 130	Margate City	70
Tier 1	Atlantic	Tract 132.01	Ventnor City	65

#### LIVE DEMONSTRATION



