Electric Vehicle DC Fast Charging Community Infrastructure Planning Methodology

In accordance with the New Jersey Partnership to Plug-In, “Partnership” (signed June 3rd, 2019), the New Jersey Department of Environmental Protection (DEP) is developing mapping that will help inform strategic placement of electric vehicle (EV) charging infrastructure.

Further, Public Law 2019, chapter 362, “EV Law” (signed January 17th, 2020), prescribes more specific requirements for EV charging infrastructure, with regard to number, power, and distribution of charging stations.

Following DEP’s prior focus of DC fast charging (DCFC) on major travel corridors in New Jersey, this current phase focuses on equipping New Jersey’s communities with efficient charging options. DEP is using the following strategy to develop plans for where DCFC would be best deployed in communities throughout NJ.

- **Mapping Development and Background**
  - **Geographic and Demographic Considerations:**
    - MJ Bradley & Associates developed a tool (ILIT) to evaluate demographic data to determine which locations may be suited for electric vehicle fast charging infrastructure. Results are displayed using 2019 Census tracts ranked against other tracts in the dataset.
    - DEP unitized ILIT to receive a “suitably score” for each census tract within all NJ counties. Each tract was scored against other tracts within their respective county and given a score based on their population density and commercial activity.
  
  - **Proximity to DEP’s Prior DCFC Solicitation installations:**
    - The locations of the existing and planned DCFC infrastructure will be taken into consideration for the solicitation. These locations include all compliant DCFC installations and planned installations from DEP’s prior community and corridor solicitations.

- **Utilizing ILIT data, DEP created an [Interactable Heatmap](#) which displays the suitably score for each census tract within New Jersey. This map also displays the locations of the noted existing and planned DCFC infrastructure from prior DEP Solicitations.**
Navigating the BMS Community Solicitation Map

- Upon opening the Map link, Census Tracts and DCFC Infrastructure are automatically overlaid over a map of New Jersey. Each of these tracts and location points can be clicked on, which will pull up a small window with more information.

- User information for specific tools:
  - *Color Significance* – The color of each tract corresponds with its suitability score, the darkest tracts having the highest scores. Applications for project within the darkest tracts will be given priority in the internal BMS selection process.
  - *DCFC Charger Locations* – Each star-shaped point on the map represents an existing or planned DCFC Charger location. More information on each charger location can be accessed by clicking a star icon on the map.
  - *Layer List* - This tool accessed in the upper right corner of the map by clicking the box-shaped icon. This tool allows layers to be selectively displayed on the map. The tract data, charging locations, and county boundaries are automatically displayed as the map is loaded. A layer for municipality boundaries may also be displayed once selected in the layer list.
  - *Base Map Gallery* – This tool is accessed in the top right corner of the map under the search function. The icon for the tool is 4 squares. Clicking this icon will open the base map gallery which has 6 map options. There are 2 base maps of note:
    - Navigation – This base map is selected by default. The map has detailed roads and highways but has minimal geographic and zoning details. This base map allows the census tract colors to be the most visible.
    - OpenStreetMap – This base map is thoroughly detailed with zoning boundaries and locations of interest. Users can easily locate businesses, public spaces, and other locations details by zooming in on this base map.
  - *Search Tool* – This search function is accessed in the upper left corner of the map. Inputting an address or place will pinpoint the location and zoom in.
  - *“About” Section* – This tool is located in the top right corner of the map and accessed by clicking the “i” icon. This section provides additional map details and IPPI contact information.