eRoadMAP™

Layer References|
Source, Update Frequency, Granularity

EPRI | EVs2Scale2030™

Projected Energy Demands Hexagon Layer

- **Data provider:** EPRI—based on input from project partners and other stakeholders
- **Source update frequency:** As new data becomes available
- **Map update frequency:** As needed
- **Data Granularity:** Hex 8 level (~0.28 square miles)
- **Last Updated:** March 11th, 2024

eRoadMAP™ Air Quality of Concern Layer

- **Data provider:** US Department of Transportation, citing "EPA's EJScreen 2022" as their source
  - Air quality is measured through levels of particulate matter of at most 2.5 micrometers in diameter (PM2.5)
- **Metadata URL:** https://www.transportation.gov/priorities/equity/justice40/download-data
  - Verified on May 6th, 2024
- **Data download URL:** https://www.transportation.gov/sites/dot.gov/files/docs/justice40/DOT_Index_5_3.csv
  - Last downloaded on May 6th, 2024
- **Source update frequency:** Static data from 2022*.
- **Data Granularity:** Available by Census Tract measured in $\mu g/m^3$ units
  - All areas shown have levels of least PM2.5 > 9 $\mu g/m^3$
  - EPA defines environments where levels of PM2.5 > 9 $\mu g/m^3$ to be above the primary (health-based) standard
  - Exposure to elevated levels of PM are linked with adverse health effects to your heart and lungs

*eRoadMAP layer will not be updated unless original source releases a new study

Transportation Disadvantage Layer

- **Data provider:** US Department of Transportation, citing "EPA's EJScreen 2022" as their source
- **Metadata URL:** https://www.transportation.gov/priorities/equity/justice40/download-data
  - Verified on May 6th, 2024
- **Data download URL:** https://www.transportation.gov/sites/dot.gov/files/docs/justice40/DOT_Index_5_3.csv
  - Last downloaded on May 6th, 2024
- **Source update frequency:** Static data from 2022*.
- **Data Granularity:** Available by Census Tract
  - Highlighted Census tracts are within the lowest 10th percentile of transportation access in the United States
  - The transportation access measure is a composite indicator that the USDOT compiles from multiple other sources

*eRoadMAP layer will not be updated unless original source releases a new study

Justice40 Census Tracts Layer

- **Data provider:** US Department of Transportation, citing "EPA's EJScreen 2022" as their source
- **Metadata URL:** https://www.transportation.gov/priorities/equity/justice40/download-data
  - Verified on May 6th, 2024
- **Data download URL:** https://www.transportation.gov/sites/dot.gov/files/docs/justice40/DOT_Index_5_3.csv
  - Last downloaded on May 6th, 2024
- **Source update frequency:** Static data from 2022*.
- **Data Granularity:** Available by Census Tract
  - Highlighted Census tracts have been identified as Disadvantaged Communities

*eRoadMAP layer will not be updated unless original source releases a new study

EV Charging Stations Layer

- **Data provider:** US Department of Energy
- **Metadata URL:** https://afdc.energy.gov/stations/#/find/nearest
- **Data download URL:** https://services9.arcgis.com/RHVPKKiFTONKtxq3/ArcGIS/rest/services/Alternate_Fuel/FeatureServer/0
- **Source update frequency:** Daily
- **eRoadMAP update frequency:** Daily automated updates from the source
- **Data Granularity:** Number of chargers at the site level (address)
  - DC Fast Port and Level 2 Ports chargers are identified as well as the connector type(s)
  - We apply the following filters: public, in the US, has at least one Level 2 or DC fast charging port

Truck Stops Layer

- **Data provider:** US Department of Transportation
- **Data download URL:** https://ops.fhwa.dot.gov/Freight/infrastructure/truck_parking/jasons_law/jlaw_data_shapefile_2019.zip
- **Source update frequency:** Static data from 2019*
- **Map update frequency:** Will not be updated unless original source releases a new study
- **Data Granularity:** Existing truck stop sites are listed by name and direction
  - Number of parking sports at each site are listed
  - Road is identified

*eRoadMAP layer will not be updated unless original source releases new data

SCE Hosting Capacity Layer

- **Data provider:** SCE
- **Metadata URL:** https://drpep.sce.com/drpep/
  - Verified on May 2nd, 2024
- **Data Download:** Once on the site, the download button is the last icon listed on the left-hand side of the page
- **Source update frequency:** Daily
- **eRoadMAP update frequency:** Daily automated updates
- **Data Granularity:** Line capacity linked to the relevant circuit
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : While Southern California Edison makes every effort to ensure the accuracy of DRPEP, the data provided is for information purposes only. Southern California Edison makes no guarantee, expressed or implied, for the outcome of an interconnection request.*

eRoadMAP™ PG&E Hosting Capacity Layer

- **Data provider:** PG&E
- **Metadata URL:** https://www.pge.com/b2b/distribution-resource-planning/integration-capacity-map.shtml
  - Verified on May 1st, 2024
  - Requires an account login, but anyone can make one
  - PG&E must manually provide access to download
- **Data Download:** Once logged in, find a "Download Spatial Data" button on the top right-hand side
- **Source update frequency:** Monthly
- **eRoadMAP update frequency:** Weekly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

Note from the utility website *: While the ICA map includes the best information currently available, PG&E makes no representation as to the accuracy or quality of the data provided, its fitness for the purpose intended, or its usability by the recipient; PG&E cannot be held liable for inaccuracies or the impact of decisions made on this information. PG&E cannot support the inappropriate use of this data that:*
•Put the physical or cyber-security of the electricity grid or gas pipelines at risk;
•Violate customer privacy;
•Compromise sensitive market data; or
•Void company intellectual property, patents, or trade secrets.

Con Edison (NY and NJ) Hosting Capacity Layer

- **Data provider:** Con Edison
- **Metadata URL:** Con Edison Hosting Capacity Web Application (arcgis.com)
  - Verified on April 30th, 2024
- **Query data from:** CECONY_EV_Storage_Prod (FeatureServer) (arcgis.com)
- **Source update frequency:** Twice a year, based on the previous winter and summer peaks
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The maps represent the remaining feeder and substation capacity only and do not account for all factors, such as other loads in queue, that could impact interconnection costs. The maps account for the most limited rating at the feeder head and do not account for any smaller equipment downstream of the feeder head (i.e., step-down ratios or smaller conductors). This data is being provided for informational purposes only and is not a substitute for the established customer application process.*

Orange & Rockland Electric Company (NY and NJ) Hosting Capacity Layer

- **Data provider:** Orange & Rockland Electric Company
- **Metadata URL:** O&R Hosting Capacity Web Application (arcgis.com) Verified on April 30th, 2024
- **Query data from:** ORU_EVM_Feeders_Prod (FeatureServer) (arcgis.com)
- **Source update frequency:** Twice a year, based on the previous winter and summer peaks
- **eRoadMAP update frequency:** Monthly Automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The Hosting Capacity data that is being provided is for information purposes only and is not intended to be a substitute for the established interconnection process. The analyses presented in these displays provide the feeder level hosting capacity for the distribution circuits evaluated. Hosting Capacity is an estimate of the amount of DER that may be accommodated without adversely impacting power quality or reliability under current configurations and without requiring infrastructure upgrades. Please note that this analysis was conducted under current configurations, without installed DER, and prior to infrastructure upgrades such as; installing a recloser or remote terminal unit at the Point of Common Coupling, replacing a voltage regulating device or controller to allow for reverse flow, substation-related upgrades including 3V0 protection, or other protection-related upgrades.*

Central Hudson Gas & Electric Hosting Capacity Layer

- **Data provider:** Central Hudson Gas & Electric
- **Metadata URL:** Energy Storage Hosting Capacity App (cenhud.com) Verified on April 30th, 2024
- **Query data from:** Layer: 3 Phase Charging (MW) (ID: 0) (cenhud.com)
- **Source update frequency:** Annually
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The maps represent the feeder level energy storage hosting capacity only and do not account for all factors, such as other proposed loads, that could impact energy storage interconnection costs. The maps are colored by feeder maximum hosting capacity value. As a rule of thumb, the maximum hosting capacity value is indicative of the available hosting capacity at a specific location across the feeder segment, most often located at the beginning of a feeders three-phase mainline. The minimum hosting capacity value is indicative of the available hosting capacity across the length of the feeder and most often defined by the hosting capacity value located at the end of three-phase mainline.*
To calculate the hosting capacity, the output change for voltage deviation was input as 100% and therefore assumes the energy storage system will not operate at a full powerflow change (i.e., full charge to full discharge). The analyses also assume energy storage operation between 10am-8pm only.
This data is being provided for informational purposes only and is not intended to be a substitute for the established customer application process. A full list of assumptions and considerations for the analysis can be found using the link below.

National Grid (NY) Hosting Capacity Layer

- **Data provider:** National Grid
- **Metadata URL:** National Grid New York System Data Portal Verified on May 2nd, 2024
- **Query data from:** Layer: feeder_summer_load_capacity_data (ID: 0) (nationalgrid.com)
- **Source update frequency:** Unknown
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The portal and maps are not a guarantee that generators can interconnect at any particular time and place. A number of factors drive the ability and cost of interconnecting distributed generation to the electric system and actual interconnection requirements and costs will be determined following detailed studies. These studies will consider your specific project location, operating characteristics and timing. Additionally, environmental and other required permits are independent of our interconnection process and may limit the suitability of a particular site.*

National Grid (MA) Hosting Capacity Layer

- **Data provider:** National Grid
- **Metadata URL:** National Grid - Massachusetts System Data Portal Verified on May 2nd, 2024
- **Query data from:** Layer: % Based 2022 Loads (ID: 0) (nationalgrid.com)
- **Source update frequency:** Unknown
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The portal and maps are not a guarantee that generators can interconnect at any particular time and place. A number of factors drive the ability and cost of interconnecting distributed generation to the electric system and actual interconnection requirements and costs will be determined following detailed studies. These studies will consider your specific project location, operating characteristics and timing. Additionally, environmental and other required permits are independent of our interconnection process and may limit the suitability of a particular site.*

Rhode Island Energy Hosting Capacity Layer

- **Data provider:** National Grid Rhode Island Energy
- **Metadata URL:** Map Series (nationalgrid.com) Verified on May 2nd, 2024
- **Query data from:** Layer: % Based on 2024 Loads (ID: 0) (nationalgrid.com)
- **Source update frequency:** Unknown
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

Note from the utility website *: The analyses presented in this map provide the feeder level hosting capacity for the distribution circuits evaluated. Hosting Capacity is an estimate of the amount of DER that may be accommodated without adversely impacting power quality or reliability under current configurations and without requiring infrastructure upgrades. Please see the "Refresh Date" in the respective feeder selection window for when each feeder's data was last updated.*

Challenging feeder – A circuit identified as a "challenging feeder" may present significant complexities for Distributed Generation (DG) interconnections. Interconnections on a challenging feeder may be considered not feasible and require significant system modifications like the extension of another circuit or new substation build to serve the DG. Issues that could cause a circuit to be added to this list includes but is not limited to:

-Limited or no hosting capacity remaining on the feeder
-Circuit is ineffectively grounded
-Circuit is a network feeder
-Other known issues on the circuit identified in area studies and/or previous interconnection studies

Please refer to the Rhode Island System Data Portal Help Guide for detail on the considerations and stipulations for the hosting capacity analysis, methodology and assumptions, and content. Please review the Rhode Island System Data Portal Help Guide and the National Grid Rhode Island System Data Portal Terms of Use before using the Rhode Island System Data Portal.

eRoadMAP™ AvanGrid Hosting Capacity Layer

- **Data provider:** NYSEG and RG&E
- **Metadata URL:** NYSEG/RGE Hosting Capacity Portal (arcgis.com) Verified on May 2nd, 2024
- **Query data from:** NY_HC_EV_PROD (FeatureServer) (arcgis.com)
- **Source update frequency: Unknown -** Last updated on 01/06/24
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

***Note from the utility website** : The analysis results presented in these displays provide the remaining available load capacity for the distribution circuits evaluated. The maps are an estimate of the remaining circuit load capacity to help guide both electric vehicle charging developers and Electric Clean Heat providers to areas where load capacity headroom exists. The analysis was conducted under current configurations prior to any planned infrastructure upgrades, such as reconductoring.*

The maps represent the remaining feeder capacity only and do not account for all factors, such as queued loads, that could impact interconnection costs. The maps account for the most limited rating at the feeder head and not for any smaller equipment downstream of the feeder head (i.e., step-down transformers or smaller conductors). The data is provided for informational purposes only and is not intended to be a substitute for established customer application process.

Los Angeles Department of Water and Power Hosting Capacity Layer

- **Data provider:** LADWP
- **Metadata URL:** Los Angeles Department of Water and Power: Power Capacity (arcgis.com) Verified on May 2nd, 2024
- **Data Download:** https://gis.ladwp.com/Data/Power_Capacity_34.5kV.kmz.zip
- **Source update frequency:** Unknown
- **eRoadMAP update frequency:** Monthly automated updates
- **Data Granularity:** Line capacity linked to the relevant feeder
- **Note:** Presented on the "Hosting Capacity Layer" with other utility data

Note from the utility website: *While LADWP makes efforts to ensure the accuracy of the Capacity Maps, the data provided is for informational purposes only and is not intended to be an up-to-date detailed depiction of the current state of LADWP's electrical distribution network. LADWP does not guarantee the accuracy of the maps, the availability of the maps or that the maps will be error-free, and makes no warranties of any kind, either express or implied, including without limitation, warranties of title, or implied warranties of merchantability or fitness for a particular purpose, with regard to the maps. The Capacity Map values do not imply or guarantee that no distribution upgrades will be required or contemplated. LADWP shall not be liable for any loss or damage of any kind, including but not limited to special, indirect incidental, or consequential loss or damages, or any loss or damage whatsoever arising from or in connection with the use of the Capacity Maps or the information contained on, in or upon the Capacity Maps. The Capacity Maps are provided 'AS IS' without any warranty as to performance, availability, accuracy or freedom from error or as to any consequences generated by or through their use. Users of the Capacity Maps are solely responsible for verifying any information contained therein and should not rely solely on the information provided therein. Users are solely responsible for all costs associated with such verification. LADWP makes no guarantee expressed or implied for the outcome of a request for electric service from LADWP or interconnection with LADWP's electric system Information contained on Capacity Maps is subject to change without notice and LADWP makes no commitment to update Capacity Maps of the information contained therein. LADWP reserves the right to modify, suspend, or discontinue the provisioning of Capacity Maps any time without notice.*