

## Statement of Purpose

Typically, the deployment of electric vehicle charging infrastructure in a country lags behind the purchase of electric vehicles<sup>1</sup>. The same holds in the United States. This set of choropleth maps shows that as time went by, the electric vehicle (EV) to charger ratios were decreasing during 2018 – 2021. That indicates more charger points were built as time went by compared to the purchase of electric vehicles in the US states.

However, the deployment of EV charging infrastructure is still insufficient according to the most recent data. In 2014, the Alternative Fuel Infrastructure Directive (AFID) recommended that countries reach 10 electric light-duty vehicles (LDVs) per public charger by 2020. This set of maps marks the US states with warm tones (yellow, orange, and dark orange) while the EV-to-charger ratios are no less than 20, which is a threshold even higher than the recommendation, to indicate the US states that are still urgent for EV charging infrastructures. On the contrary, the US states marked as green or gray indicate their sufficient or mediocre deployment level of EV charging infrastructures compared to the numbers of registered EVs in the states.

Note: There is no R code for data visualization since this set of choropleth maps is created by Tableau. The R code here only includes the data wrangling process.

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<sup>1</sup> IEA. (2022). Global EV Outlook 2022. <https://www.iea.org/reports/global-ev-outlook-2022>