

1. Merged data in folder(csv files)

- 1) Outage_final.csv: File with data on demographic, geographic and power outages. We use this data file for analysis.
- 2) Variables name:
 - CustomerHoursOutTotal: Total customer outages hours
 - CustomerHoursOutTotal_no_storm: No-weather related total customer outages hours
 - CustomersTracked: Total Customer tracked
 - SAIDI_Weather: Weather-related SAIDI
 - SAIDI_Nonweather: Non-weather related SAIDI
 - English_Dep: Percent English deficiency
 - Poverty: Percent Poverty
 - Minority_Racial: Percent racial minority
 - Population_Density: Population density
 - Road_Density: Road density
 - TreeCover: Percent tree cover

2. Code in folder:

- 1) data_merge.R: Code to merge demographic data, geographic data, power outages data and utility service data.
- 2) SummaryStatistic.R: Code to create results listed in Table 1,2,3,4 in supplementary.
- 3) regression.R: Code to create results listed in Table 5,6,7,8,9,10,11,12,13 in supplementary information.
- 4) Graph.R: Code to create figure3,4,6 of paper.
- 5) pous_saidi.py: Code to aggregates outages and customers tracked to county level.
- 6) pous_storm_data_analysis.ipynb: Code to map storm events to outages data.
- 7) saidi_calculations.ipynb: Code to calculate SAID, utility mapping, and create Figure 1, 2 of paper.