

## **EV Charging Desert: The Challenges with Electric Vehicle Charging in Modesto California**

Delton Boswell

As the popularity of electric vehicles (EVs) increases, it's become clear that some regions are struggling to keep up with EV charging infrastructure. Stanislaus County in California's Central San Joaquin Valley is one such region, lacking a significant number of public EV charging stations. This research project explores proactive measures that Stanislaus County and by extension, the City of Modesto can take to improve its' public EV charging infrastructure. Given limitations in power infrastructure and cost, the optimal placement of charging stations is crucial. This project identifies the optimal travel routes to projected EV charging infrastructure in East Modesto based on a Python programming model using local census data. The goal is to ensure future public charging infrastructure is evenly distributed across the region, providing reasonable travel distances to public EV charging stations for all residents.