**Introduction:**

Hello,

My name is Robelio…

And our project is about California’s natural gas Emissions

**About the Topic:**

California has set a goal of getting 5 million electric vehicles (EVs) on the road by 2030. This change will help California move toward its climate change goals, but residents will rely more on the state's PowerGrid. This increased strain on the PowerGrid could have a great impact on California’s energy resources. When looking at this topic on a macro level we saw direct effects on the living environment, pollutant levels, and greenhouse gasses. Additionally, this topic has a significant effect on program goals that are trying to be implemented in California and this predictive model should produce an analysis that would affect policy change and implementation.

**Questions?:**

For this project, we have two questions we wish to answer

* How does the increased use of electric vehicles impact natural gas consumption in California?

and

* How does time of day impact the carbon intensity of EV charging?

**Data Source:**

Our search process was difficult due to energy-related data requiring payment to access. So, we did a lot of research on our topic to gain a better understanding and find reliable sources that can offer the data that we need. After our research, we found a great deal of data in the supply and demand section of California ISO. Next, we gathered charge times and charge strength data from various electric chargers from Sun Country Highway. To get our data, we had to use two types of data scraping to be converted to a CSV format.

**Data Scraping - Sun Country Highway:**

For Sun Country Highway, we wanted to get this data in a CSV format so we can use it as a comparison for our other data. We didn’t need all the columns, so we removed all the data that was not needed.

**Data Scraping - California ISO:**

The process was a bit more difficult when scraping the data for California ISO. To start we had to find a way to select the calendar, enter a date and download the CSV file. Two loops were needed to get four years’ worth of data. This process ended with over 1,500 CSV files which were then cleaned and transposed into one file.

**Now … will talk about the analysis**