MICHIGAN STATE
U N I V E R S I T Y

Alpha Presentation
Electricity Grid Planning Tool

The Capstone Experience

Team Anthropocene Institute 2

Nic Weller

Amanuel Engeda

Tyler Smith

Nafisa Lenseni

Hunter Paul

Department of Computer Science and Engineering
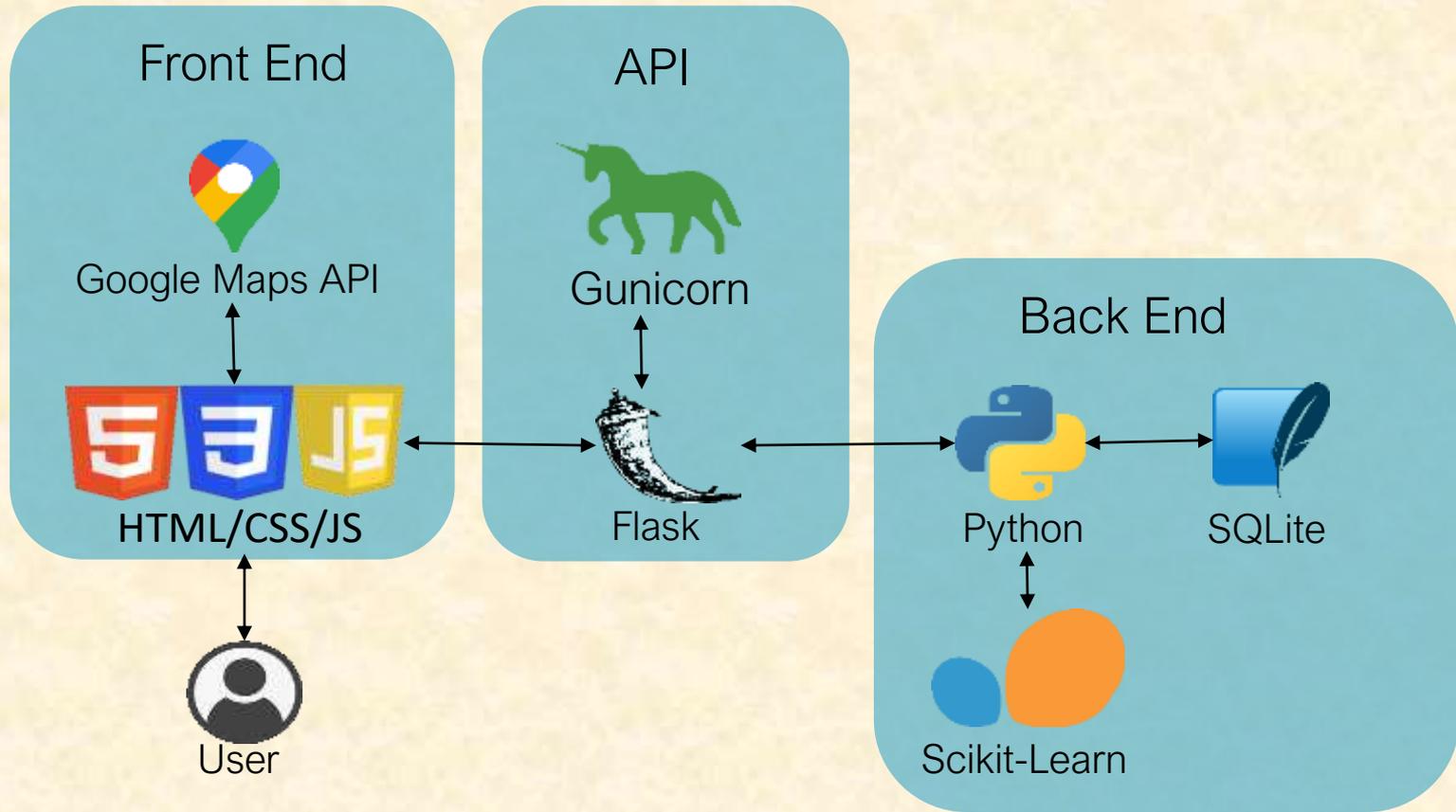
Michigan State University

Fall 2021

From Students…
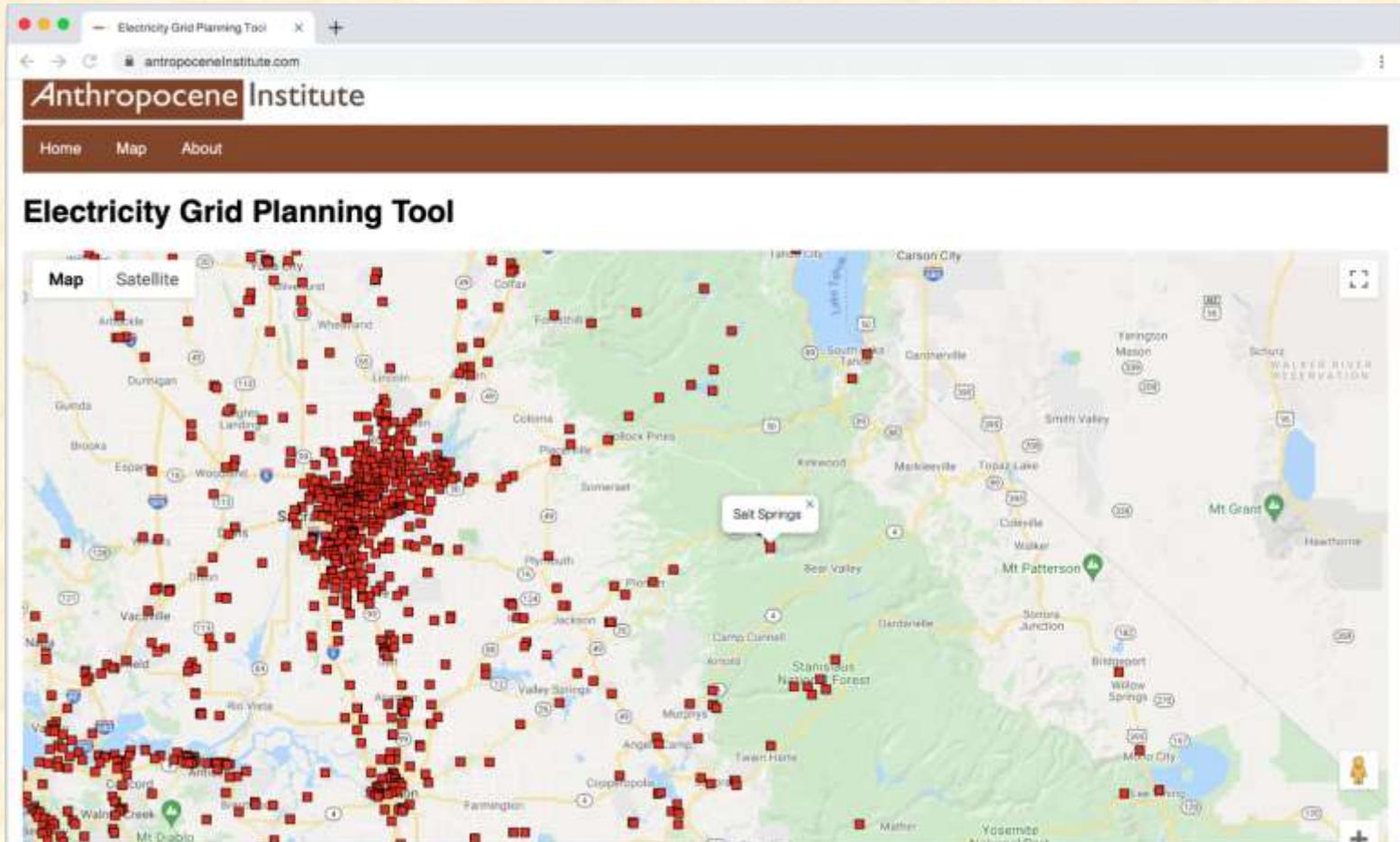*…to Professionals*

Project Overview

- The goal is to help grid planners and policy makers understand the costs and benefits of deploying SMRs at substations in California.

- The tool will be able to make comparisons and create a general overview of statistics on SMR placement.
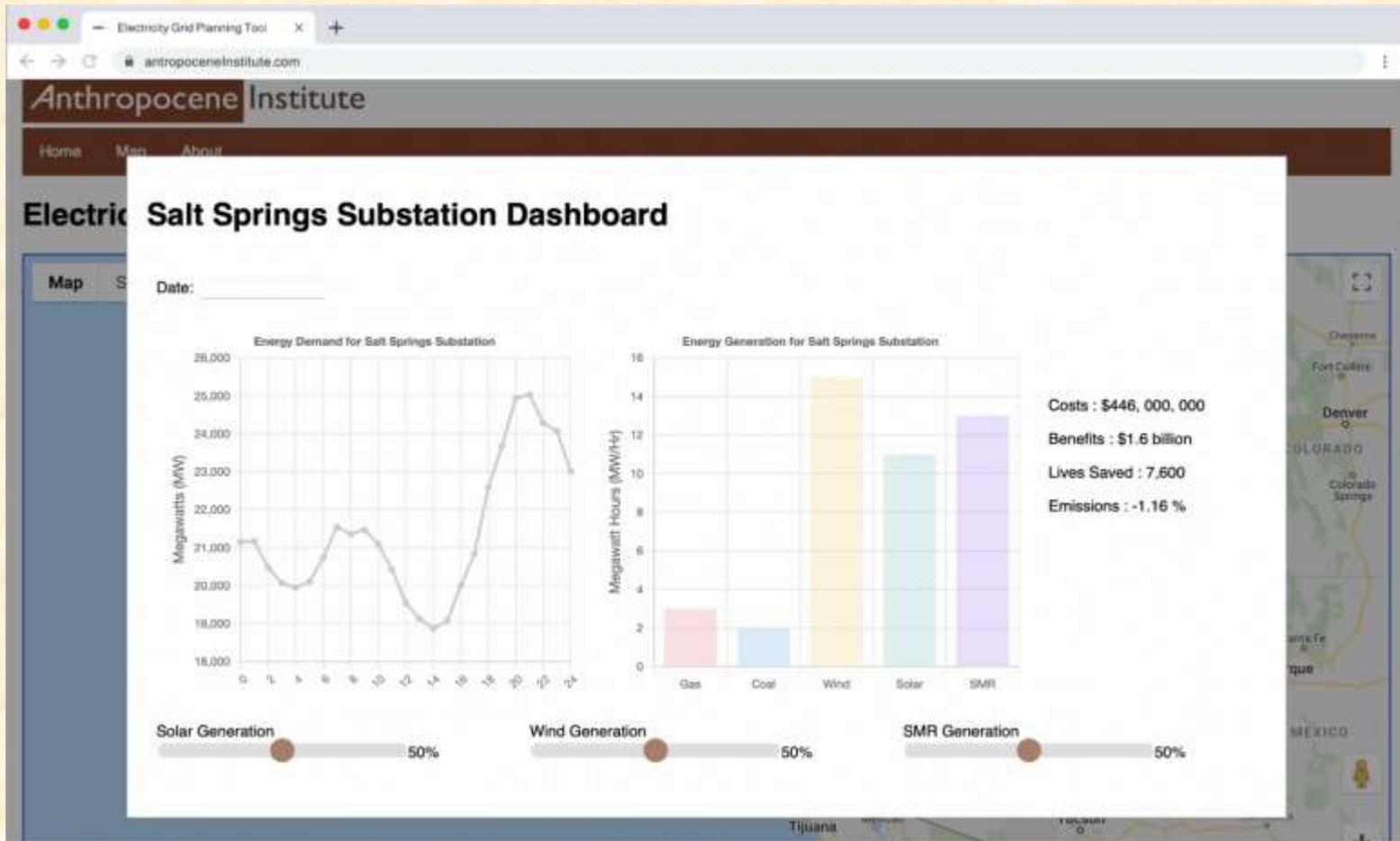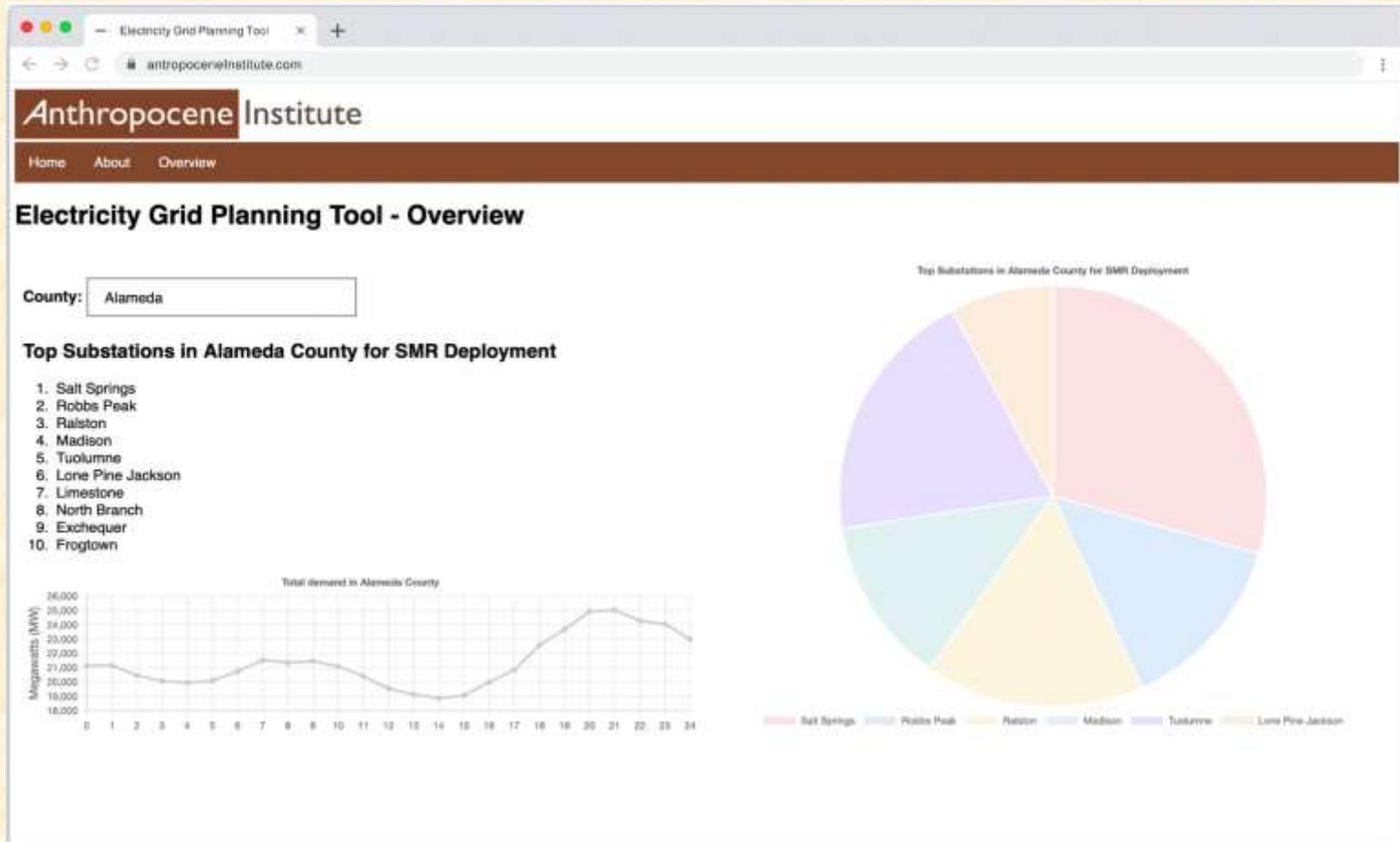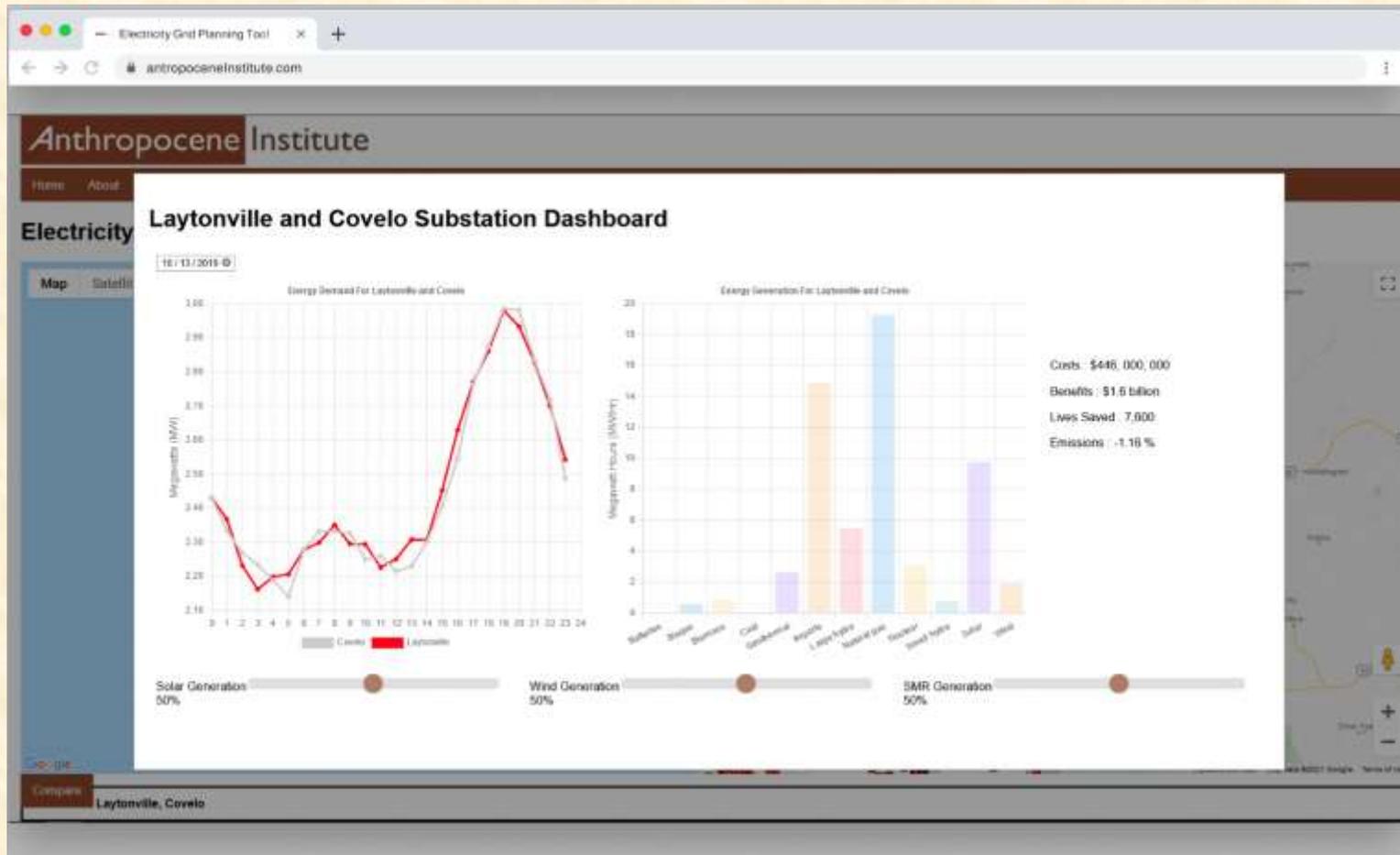
System Architecture

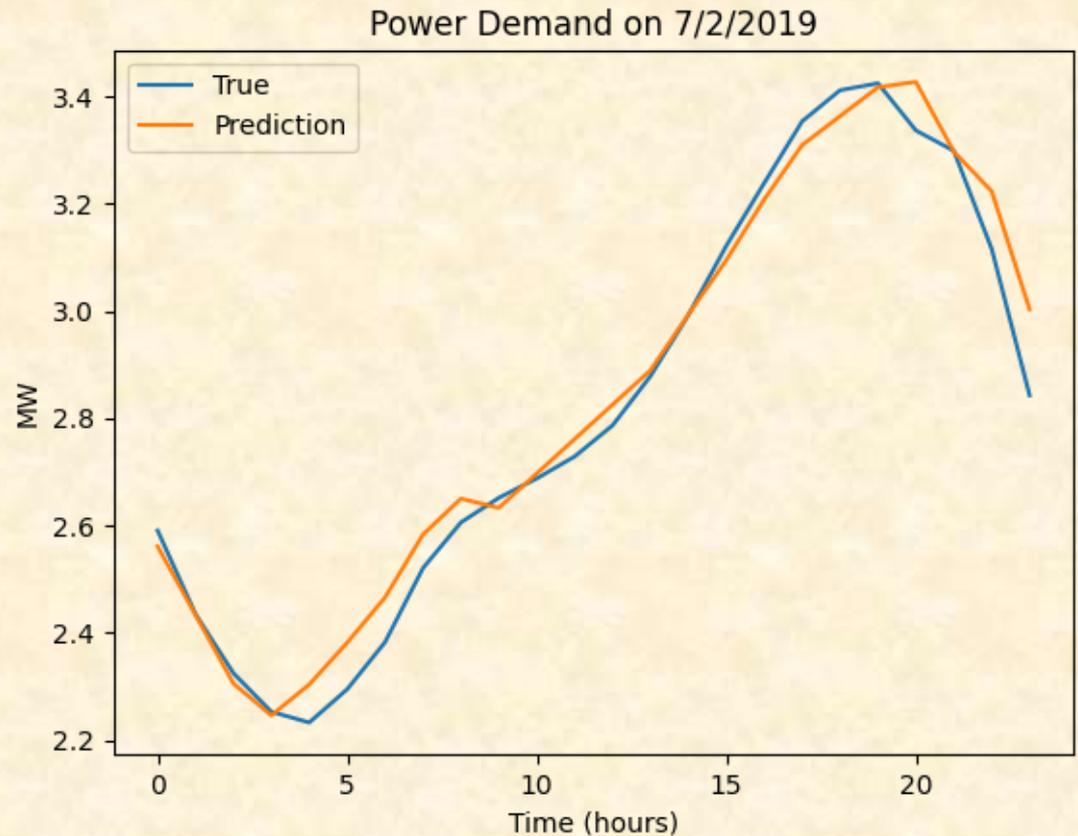# Substation Map

Substation Dashboard

Overview

Multiple Substations

Model Performance

- Arbitrary Day
- Arbitrary Substation in Kings County
- Mean Squared Error
  - 0.065
- R^2
  - 88.8%

Power Demand on 7/2/2019

What's left to do?

- Integrating stats from the back end.

- Make the overview dynamic.

- Continue generating endpoints for the API.

- Utilize the machine learning model.

- Generate necessary statistics.

Questions?