

**Homework 9 on Lecture 13 on *EVCI*****Date due: Monday, April 21, 2023**

**This is a problem which is appropriate to do as a team assignment. I am most willing to review your team's answer, if you wish to submit.**

This problem requires the determination of the location of EVSE placement for one-stop en-route charging

1. **Select** trip origin of under 100 miles and **identify** the points of origin and destination.
2. **Identify** the widely-used routes to reach your destination from the origin.
3. **Select** the “best” route according to a criterion (a) that you need to **specify**.
4. **Determine** the CRZ on the selected route and **explain** how you determined its borders.
5. **Identify** the location for the EVSE placement within the CRZ based on the following criteria:
  - distance from the main travel corridor, i.e., the selected route
  - provision of electricity service at the location
6. **State** how you plan to ensure that the location has
  - adequate and appropriate signage to guide drivers to the EVSE location
  - on-site entertainment while the charging occurs

Among the assumptions you may make include:

- the lowest EV range on the market is 73 miles
- the addition of loads such as hotel and other incidental needs may further reduce the battery range by 30 %
- the car is fully charge when departing from the origin.

State all additional assumptions you wish to introduce and **justify** their reasonableness.