**Introduction**

Compared to conventional cars, the Electric Vehicle has been increasingly beneficial in environmental and economical perspectives, since it can reduce carbon emission and motivate the transformation of energy structure. Some countries plan the transition from gasoline and diesel cars to EVs, however, the switch won’t be realized instantaneously, and there exist several barriers against widespread adoption of EVs such as the limited driving range plus charging station availability. This paper will deal with the later factor approximately in the following three perspectives, **the allocation of charging stations across a nation**, **the location of charging stations in a specific area and** **the number of charging plies in one station**, with the aim of formulating a productive, feasible and universal architecture of the charging network to support the significant switch.