

## **EV Charging Stations**



Public infrastructure that enables fast charging can save a driver \$1,500 to \$6,500 over the average lifetime of vehicle ownership.

Source: Transportation Research Part D (2020)

Intelligent vehicle charging infrastructure has potential for as much as \$420 annual savings per electric vehicle.

Source: USDOE (2013)

Both consumer motorists and transit fleet drivers of plug-in electric vehicles (EVs) require access to charging stations. Although users typically have charging installations at home or at fleet facilities, charging stations elsewhere such as public spaces and workplaces can help bolster adoption of EVs.

## **Charging Station Types**

Charging station equipment is ranked by how quickly batteries are charged. There are three main types (ranked from slowest to quickest charge): Level 1, Level 2, and DC Fast Charging. (US DOE)

## The EV Charging Market

Consumers consistently cite lack of access to efficient charging stations as a barrier to purchasing an EV. In the United States, total charging energy demand could rise by 1,300 percent from 2020 to 2030. (McKinsey)

Within the US, the industry could require over 20 million chargers and \$10 billion in investment by 2030 to meet demand. Although most chargers will be in homes or in workplaces, approximately 30 percent of capital costs will come from publicly available charging stations. (McKinsey)

## **Highlighted ITS Benefits**

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