



Gas Vs Elec



Gas

Most gas pumps transfer the fuel at the same speed. And require an underground tank. The need for a tank restricts where a gas pump can be located. Tank requires proper zoning and limits locations

Elec

Practically any parking space can be an EV charger.

But wiring some is harder than others

Electric chargers have multiple plug types

The three most common are Tesla, J-1772 and CCS.

Electric chargers have multiple levels of charging.

120V Level 1

240 V Level 2

Direct Current DCFC - commonly referred to as level 3

Charging power of the three levels.

Level 1 1.2 kw 1.4 kw

Level 2 3.3 kw 6.6 kw 9.5 kw 11 kw 19 kw

DCFC 20 kw 25 kw 50 kw 62.5 kw 100 kw 125 kw 150 kw . . . 350 kw and up.
and these are just the ones that I am aware of.

for home charging = 3.3 and 6.6 kw chargers fit best. With 10 or more hours, the vehicle is fully charged.

for home charging = 19 kw charger finishes too quickly - no benefit for the extra money spent.

for work charging = a shared power 6.6kw could be a good choice. With the varying distances the workers travel.

The Electrify America location at Meijer (under construction) with 150kw and up will be appreciated for travelers and those shopping at Meijer. With shopping trips of 20 minutes or so fits the charging time. On the other hand - if EV driver goes to the movie theater across the street, the EV will finish charging long before the feature is over and the EV driver will be charged extra.

Restaurants might prefer the lower DCFC or fastest level2. Locals might tend to not charge & while those from out of town would like the higher speed to match the distance travelled.

Level 1 speeds are slow but for extended parking, fills a void and for some is adequate for home charging.

As EV Drivers get familiar with their cars they will become selective regarding these characteristics. And choose a charger/location combo with the goal of optimizing the balance between convenience and charging speed.