



# 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 charging space.

But wiring for 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 for varying distances the workers travel.

The Electrify America location at Meijer with 6 350kw units will be appreciated by 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, not to mention blocking it from someone that might need it.

Restaurants might prefer the lower DCFC or fastest level 2. 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.**