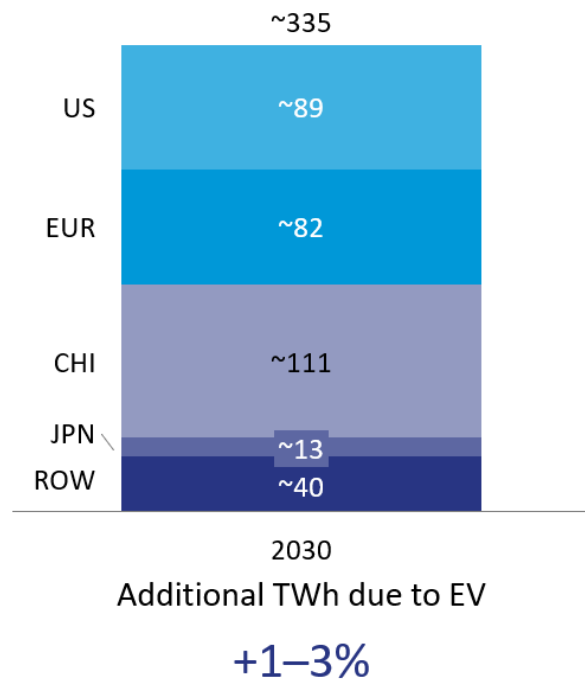


**My two EV's nearly burnt my house down**

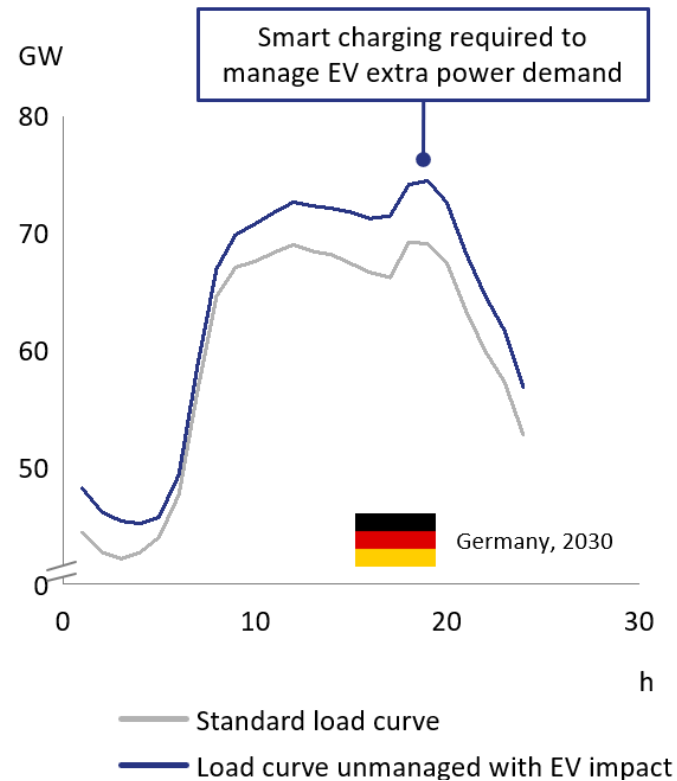


# New mobility world will have relatively minor impact at the grid level but potentially significant impact at the local connection level

EV will increase global power consumption by 1–3% by 2030



Problems could arise at peak times



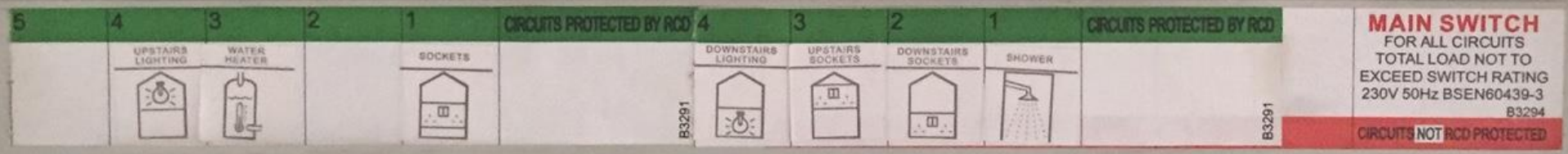
See power issues at the local level—will grow with EV penetration

- Use of multiple chargers consume a significant portion of a site’s bandwidth
- Infrastructure investments are needed to increase power supply and avoid network congestion
- This will become a significant pain point with higher EV penetration
- With higher EV penetration we will also see significant increases in local peak loads
- Highly volatile and spiky load profiles of public fast-charging stations will require additional system balancing

two versions of BS7671. Great care should be taken before undertaking extension, alteration or repair that all conductors are correctly identified.

L42352/2

protected by a device which automatically switches off the supply if an earth fault develops. Test quarterly by pressing the button marked "T" or "Test". The device should switch off the supply and should then be switched on to restore the supply. If the device does not switch off the supply when the button is pressed, seek expert advice. L39604/2



100A limit per house

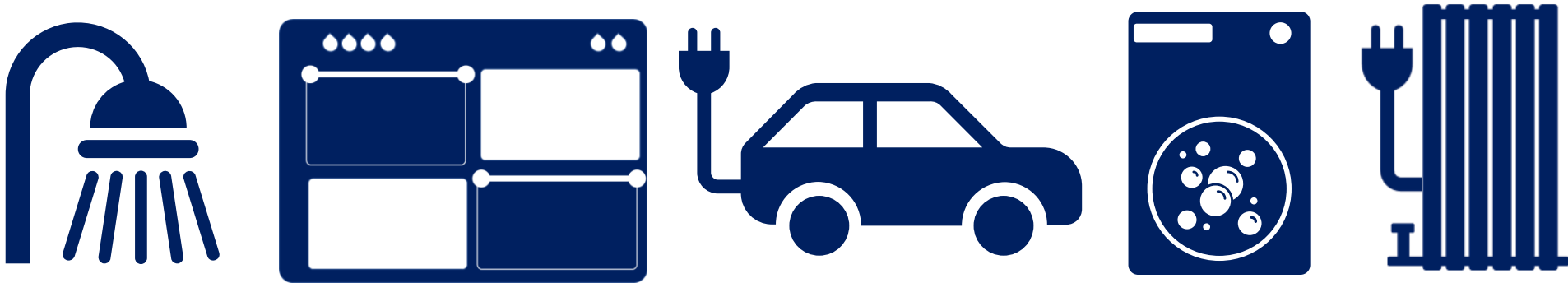


0.4 miles / kWh  
90 miles / day  
1 charge cycle / day  
80kW chargers 1 / bus (31 miles of range per hour )  
Depot size typically 20 buses but up to 100  
9300 TFL buses cover 310M miles pa, ca. 830 GWh  
Connection upgrades: £500k-£1M

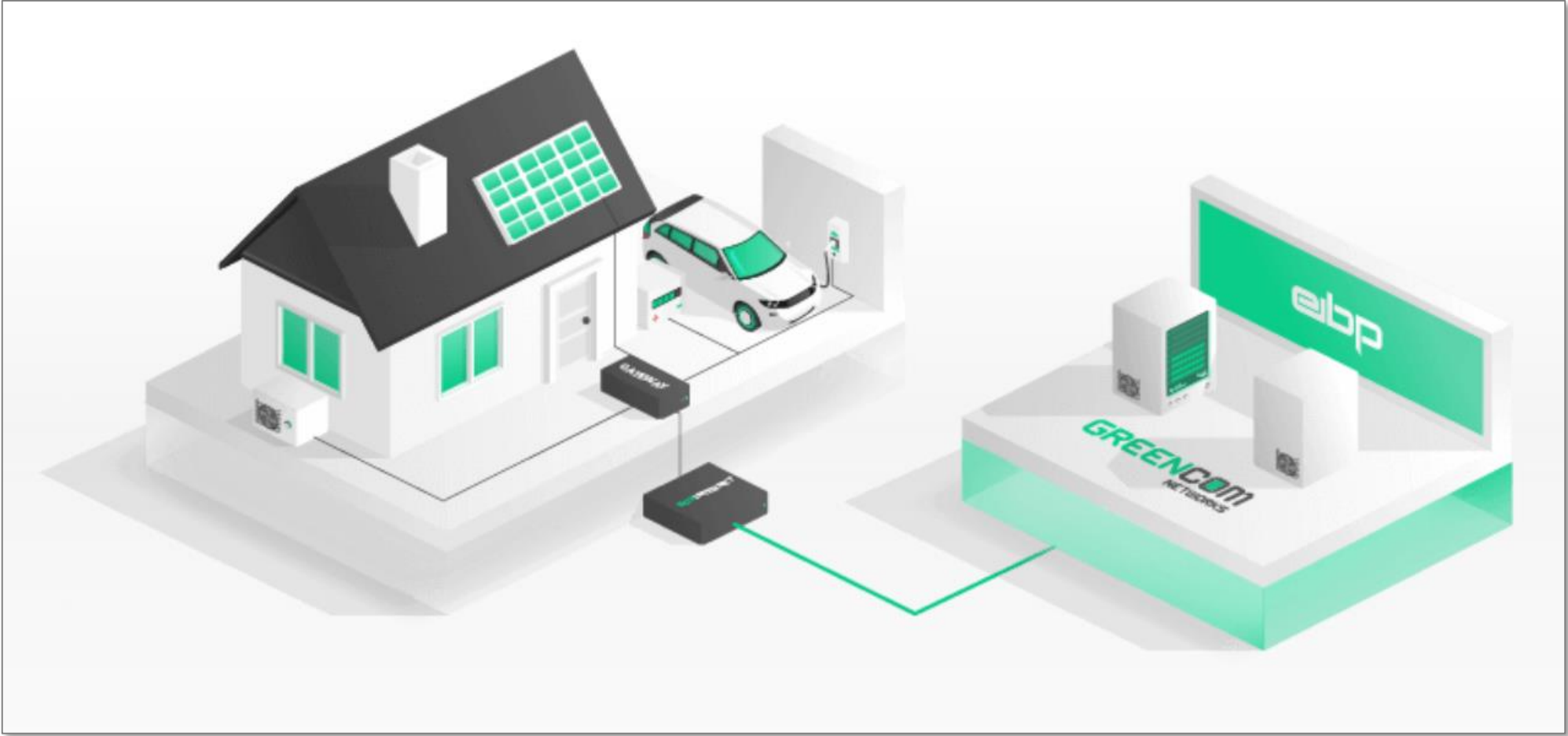


3 miles / kWh  
1 charge cycle / day  
7kW home chargers (20 miles of range per hour )  
Average daily distance drive <30miles  
120kW en route chargers (460 miles of range per hour)  
80% of consumers charge at home overnight

100A doesn't go far and advent of electrified heat post 2025 poses even greater challenge



# Greencom Networks: IoT of energy platform





250km range solar powered car

Can provide 7 days energy to a home, V2X charging